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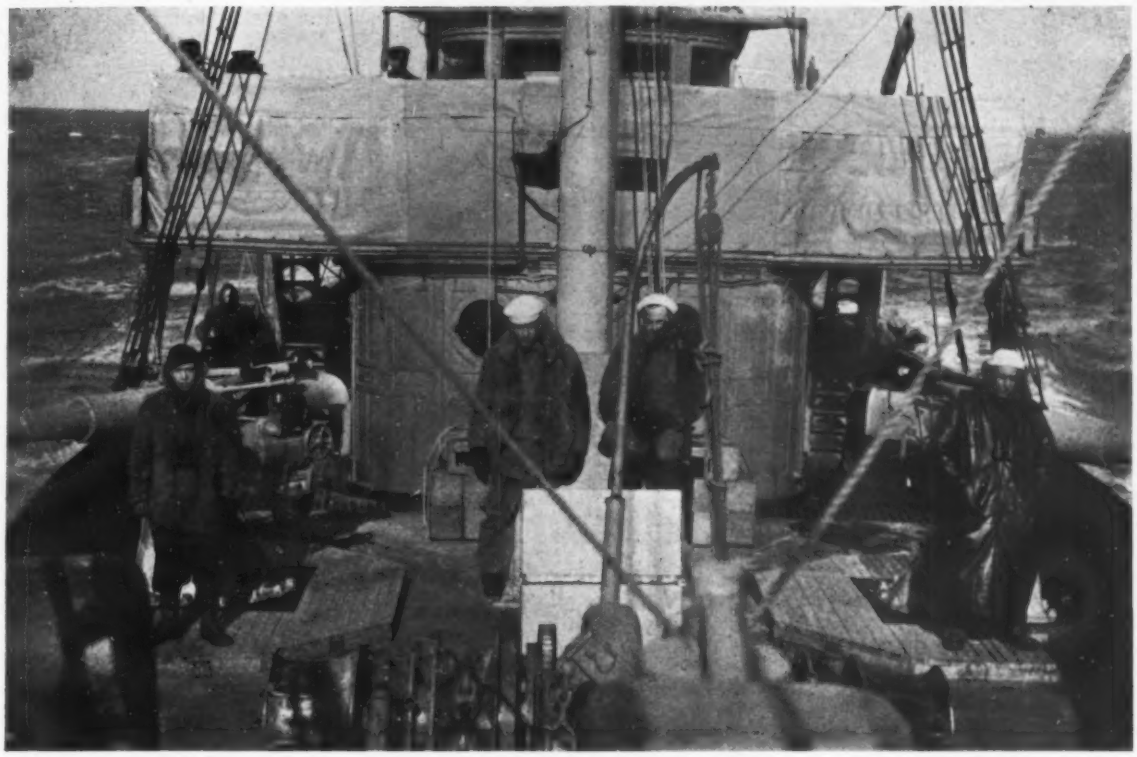


Forward deck of the *Harvard* as she was equipped for war work, with gun crews always standing by

American Armed Yachts in the War Zone

A Personal Narrative by Commander ARCHIBALD STIRLING, *U. S. Navy*

FOREWORD

One of the most interesting chapters in the Naval history of the Great War is the part that the armed yachts of the United States played in the submarine zone off the French coast. Yet almost nothing is known outside of the Navy of the work that these vessels did or of the part they played in keeping the lanes open for the transports and convoys, both trans-Atlantic and coastwise. The following article by the commanding officer of the *Harvard* is the first real story of what these boats did to be published. As the yachts he mentions were known to all American yachtsmen and were seen each Summer on our coast or on the New York Yacht Club cruise, the story is unusually interesting.

To show the value of the work which these yachts did, we cannot do better than quote the following from Admiral Henry B. Wilson's report on the operation of these vessels at the close of the war:

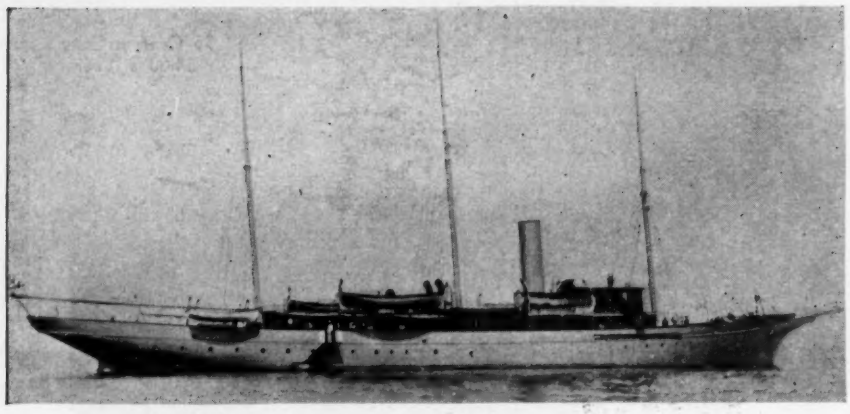
"A full account of the acquisition, fitting out, manning and service of these yachts would form one of the most interesting portions of the history of the war. The story can only be outlined here. They were acquired by the Navy in various ways. Some were rented to the Government by patriotic owners at the purely nominal price of one dollar a year. Others were purchased. * * *.

"In many ways, the service of these vessels on the coast of France may be considered the most difficult of any performed by vessels operating in the war. Nearly all of them were lightly built, intended for fair weather cruising only, and designed more for comfort than for seagoing qualities. Nevertheless, from the time of their arrival in France until the time of the armistice, they were worked without rest, and it was very seldom that any of them was not ready for any service required, whether of a routine or of an extraordinary nature.

"The young men who enlisted for active service on board these ships were willing to take almost any rating and to serve in any capacity. Successful business men and college undergraduates could be found passing coal, acting as mess attendants, and performing all the least desirable duties on board the ships they served on. Fortunately, the great expansion of the Navy made it possible to promote almost all of these men and to commission them as officers prior to the cessation of hostilities.

"It was these yachts, together with the French vessels, that bore the burden on the west coast of France during the first months after our entry into the war." Editor.

TWO months after the entry of the United States in the World War, the converted yachts *Noma, Harvard, Sultana, Christobal, Vidette and Kanawha* sailed for Brest. The *Corsair* and *Aphrodite* accompanied the first American troop convoy to St. Nazaire and later rendezvoused with the other yachts at Brest. This force of eight yachts constituted the first United States Naval effort on the coast of France during the World War.



The *Harvard* as she was as a yacht before entering naval service

These yachts were loaned to the Government at a nominal rental which amounted in most cases to one dollar a month.

The *Corsair* was owned by Mr. J. P. Morgan; the *Noma* by Lieutenant Vincent Astor; the *Harvard,* Mr. George F. Baker, Jr.; the *Sultana,* Mrs. E. H. Harriman; the *Kanawha,* Lieutenant Commander John Borden; the *Christobal,* Mr. Irving T. Bush; the *Vidette,* Mr. Fred W. Vanderbilt; and the *Aphrodite,* Colonel Oliver H. Payne.

The captains of these vessels, with the ranks held in 1917, were the *Noma,* Lieutenant Commander L. R. Leahy; *Corsair,* Lieutenant Commander T. A. Kittenger; *Aphrodite,* Lieutenant Commander R. P. Craft; *Kanawha,* Lieutenant Commander H. D. Cooke; *Vidette,* Lieutenant Commander C. L. Hand; *Christobal,* Lieutenant H. B. Riebe; *Sultana,* Lieutenant E. G. Allen; and the *Harvard,* Lieutenant A. G. Stirling. Lieutenant Astor served with distinction on his own yacht as a lieutenant, and Lieutenant Commander John Borden did likewise on the *Kanawha.*

In May, 1917, these yachts were assembled in the Navy Yard, New York, for conversion to Naval use. A coat of gray paint was applied, submarine lookout stations were constructed aloft, guns were mounted, magazines built in and signal outfits, including naval radio sets, installed. It was first intended to use the yachts on our own coast, but near the end of May, as the need for them on the other side became clear, orders were received to prepare the ships for foreign service. This caused considerably more outfitting and many changes in personnel.

My experience in equipping the *Harvard,* which I commanded, is typical of that on all the yachts. When I first came aboard I found the former yacht officers in charge enrolled as Reserves, and a crew of splendid young men, many of whom were college undergraduates. Calling the officers and crew together, I read my orders, hoisted the colors, borrowed a commission pennant from a nearby destroyer—and the U. S. S. *Harvard* was a vessel of the United States Navy. The crew, numbering about 60, were berthed chiefly in bunks made of soft wood, many of which were in the after saloon. In order to clear a space for the crew a forward section of the ship consisting of the bachelor suites and the quarters of the former officers of the yacht were gutted to the skin of the ship. The college lads did the job in three days and filled three large flat cars with wood and splinters. A foreman in the Navy Yard told me that his gang would have taken at least a week for this work. This space, when cleared, was painted, fitted with steel bunks and kapok mattresses; lineoleum was laid on the decks and hardwood mess-tables were installed. The old crew's quarters, just forward of this space, were enlarged, and these two compartments were able to accommodate almost the entire crew with comfort. The after saloon was reconditioned for use as a wardroom for commissioned officers, and the dining-room of the yacht, on the weather deck, was made into quarters for Chief Petty Officers. The awnings were taken down and sent ashore; the old small boats of the yacht were put on the dock and replaced by a navy lifeboat, cutter, wherry and motor sailing launch. The merchant compasses were removed and standard Navy binnacles installed. The main engine and all machinery was tried out and a few spare parts obtained. The whole ship was gone over from stem to stern and several additional coats of paint applied to cover up the former white enamel of the sides and the woodwork of the deck-houses.

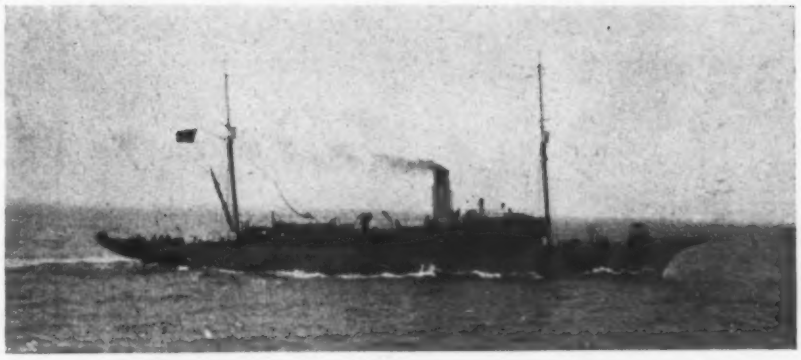
The *Harvard* carried three masts, a bowsprit with jib, trisail and mainsail. Later on, after arriving in France, one mast and the bowsprit were cut off and all sails except storm sails were removed. The ship displaced 1300 tons loaded, was 240 feet in length, 35 feet beam and drew 15 feet of water. She could make about eleven knots in good weather. The *Noma* was about the same size but faster; the *Corsair* and *Aphrodite* were considerably larger. The other original yachts were smaller, but all were staunch, seaworthy ships. Before sailing from the Navy Yard nearly

Admiral Schwerer, in charge of the Breton patrol, and Vice-Admiral H. B. Wilson, in command of the American vessels at Brest

all officers were changed. Among the new arrivals was a former classmate of mine, Lieutenant R. L. Harter, of the Naval Academy class of 1906, who had never been to sea except on midshipmen's practice cruises, and who gave up his job in civil life at the outbreak of war and offered his services. He was made Navigator and afterward Executive Officer and proved to be a splendid officer. Although we had been classmates at the Naval Academy this officer never failed to address me as Captain and I always called him by his last name.

A former engineer of a Staten Island ferry-boat, Lieutenant James H. Wallace, was eventually made Chief Engineer. He was promoted twice, once for bravery, and is one of the Reserves who was awarded the Navy Cross. The only Regular Navy officer assigned to the ship was the Captain, as the Navy Department, foreseeing future demands, was able to allow no more. Very few of the college boys were changed before departure and none of his own volition, as all were most anxious to serve in the war zone. As soon as each yacht was ready she put to sea off Sandy Hook for target practice, to try the engines and adjust compasses, and rendezvoused on June 6th in lower New York Bay.

On the morning of June 9th, at daylight, this "formidable" fleet, consisting of the *Noma, Kanawha, Vidette, Sultana, Christobal and Harvard,* the whole force under the Command of Captain William B. Fletcher, U. S. Navy, sailed for Brest by way of Bermuda and the Azores. The weather for the entire trip, which consumed nearly a month, was superb. The sea was so smooth that, although all the yachts were loaded down well beyond their designed displacement, little water came aboard and sea-sickness was practicaly unknown. The Squadron made the trip to Bermuda in four days, coaled, rested, was entertained by the Governor and the British officers of the garrison and sailed on the long leg to the Azores. This part of the trip lasted ten days and the most rigid economy was necessary in the use of coal to insure all ships arriving safely. Three days out of Ponta Delgada, Azores, a bunker fire broke out in the after bunker of the *Harvard*. A bunker fire at sea on a yacht is no pleasant affair. Ten men were overcome by the gases in the bunker in trying to get at the seat of the fire and in some cases many anxious moments were spent before these lads were brought to. Nevertheless the college boys went right back at it and we managed to put out the fire finally by moving coal and by cutting through a steel bulkhead and using salt-water. Nearly forty tons of coal were burned, as well as the woodwork in the bunkers and the heel of the mainmast. The deck overhead was also several times on fire. On the morning the fire was finally gotten under control muffled explosions started in the coal. We were working watch and watch at the time, for it was beyond human endurance for every one to work continuously. When the explosions occurred I was catching a short nap. The quartermaster on watch, who was a college graduate of the early 90's, called me and reported the circumstances in the most matter of fact way and asked if he should call all hands to give them a chance for their lives.



The *Harvard* as she appeared while in naval service

Two days out of the Azores the yachts entered the war zone and war watches were started. The *Harvard* carried two three-inch guns forward and the same aft. All guns were kept constantly manned and loaded. The six ships now divided into three groups of two each, steaming ten miles apart in order to carry on target practice. As we approached the French coast the sea became littered with debris from sunken ships, overturned lifeboats, life preservers, barrels, dead horses, deck houses and other obstructions, so that we had to change course frequently. None of us had ever seen such evidences of wanton destruction on the high seas. On the afternoon before our arrival in Brest a submarine periscope showed up between the *Kanawha* and *Noma* and fire was opened with rifles. The ships at that time carried no adequate depth charges and the position of the submarine relative to the two yachts was such that neither could use her large guns for fear of damaging the other.

Lieut. A. G. Stirling, in command of the *Harvard*, and Geo. F. Baker, Jr., owner of the yacht

At 9:30 p. m., the same day, an SOS was intercepted from a steamship and, later, another radiogram that the ship had been torpedoed and was sinking. The *Sultana* was ordered to put about and search the area. At daylight the *Sultana* rescued the crew of the American steamship *Orleans,* which had been torpedoed without warning the evening before, and brought the crew safely to Brest. The *Orleans* was the first American ship to cross the Atlantic after Germany's proclamation of February, 1917, which officially instituted her ruthless submarine campaign. The *Orleans* was on her third voyage under these conditions when torpedoed. The *Harvard,* which had been in company with the *Sultana,* stood on alone and off Brest found the *Vidette* and the *Christobal* laying to, the latter with her engines disabled. It was July 4th, a beautiful sunny morning. The sea was like a mill pond. The three ships lay to for several hours; then the *Harvard* took the *Christobal* in tow and we stood in. Shortly afterwards a small French torpedo boat met us with the signal flying, "Follow me and welcome to the coast of

Part of the original crew of the *Harvard*, most of them fresh from college

France." We found the other yachts in the harbor on our arrival.

The yachts remained in Brest a week for repairs and rest before starting the real work. Several of us took this first (and last) opportunity for many months for a trip to Paris. The Captain of the *Noma*, and I, stayed several days at the Ritz Hotel, for it was possible then to obtain cheap accommodations at that exclusive hostelry. We were surprised on the morning of our arrival to meet several sailors from our ships in the hotel lobby. They were some of our college boys who had explained to the clerk that they had always stayed at the Ritz before and could see no reason why they should change hotels now. Needless to say French sailors do not patronize the Ritz.

Every American who came to Paris those days wanted to visit the front. Commander Leahy and I made inquiries at both the Army and Navy headquarters but received no encouragement. Luckily we ran across a Red Cross car that was about to start for the hospital unit at Cugnis. So, after lunch the day following our arrival, we left Paris for the front. Our destination was Compiegne, where we arrived about 7 p. m., after having two punctures and three blowouts. The route followed was practically that taken by the Germans in their first advance of 1914. Each time the car stopped to repair tires a crowd gathered. The people were much interested in our uniforms and wanted to know how many American troops had landed and how many there were coming. The crowds were all so cheered up at what we told them that by the last stop we had promised ten million troops in a year. I do not believe that any of us thought that within a little more than a year over two million American troops would actually be in service overseas.

Shortly after we returned to Brest the yachts were sent out in pairs to patrol the coast. This method of anti-submarine work was soon abandoned as useless and the yachts were assigned to reinforce the French Coastal Convoy.

During the *Harvard's* initial trip on patrol duty we had our first submarine experience. Shortly before dark we came in company with an English ship, steaming alone, headed west, and offered our services as escort until dark. The captain of the British ship accepted and said that on his last trip he had nearly been torpedoed in that same locality. Just at dusk we sighted what appeared to be a submarine. The object seemed to be moving and left a distinct slick. A small geyser was coming up amidships. We swung around, bringing our port battery to bear, headed for the submarine and opened fire, as did the merchant vessel. Our shots were going fine and the French pilot was jumping up and down on the bridge shouting *"Submarine! Submarine!"* when, just as we got the object under our bow, intending to ram, we made it out to be an overturned boat. Air from the air-tanks was still escaping through the keel, giving an appearance of a periscope. In order to complete what was really a fine dress rehersal orders were given at the proper moment to let go a depth charge, but the officer aft used his own judgment and did not let the charge go. The Executive Officer and myself unintentionally got even with this officer later by dropping a depth charge off the stern for a test one morning when he was asleep below in his room in the after part of the ship. The concussion of the discharge quickly brought him on deck in his pajamas. On the second trip out on patrol, while cruising in the vicinity of the Isle de Sein, we sighted what appeared to be three small sailing vessels. On approaching closer the boats were made out to be the life boats of a steamer, each under sail and all three secured together with a line from stern to bow. We stopped, threw over our ladders and took aboard 75 survivors of the British ships *Trellisak* and *Exford*, who had been in the boats four days after being torpedoed, picked up by another ship and torpedoed again. There was one American citizen in the crews and we enlisted him.

The yachts were so sharp that in a heavy head sea a lot of water came aboard

Shortly after this second patrol trip the *Vidette, Christobal, Sultana* and *Harvard* were assigned to reinforce the French Coastal Convoy. The larger yachts, *Aphrodite, Corsair,* and the *Noma* and *Kanawha,* which could make 18 knots, were used to escort into Brest individual American cargo ships and to convoy empty troop ships from St. Nazaire. As soon as destroyers were available the yachts were not used to escort troop ships.

The French Coastal Convoy system was divided into three legs: the first from Penzance, England, to Brest; the second, from Brest to Quiberon Bay; the third, from Quiberon Bay to La Pallice and Bordeaux. The harbor of Brest is one of the largest in the world and lent itself very well as a place of assembly for convoys. One corner of this magnificent harbor called Roscanvel was assigned to coastal convoys. These convoys, composed of merchant ships of all the allied and neutral countries, steamed at a speed of eight knots. British trawlers formed the escort across the English Channel to a position near the Isle of Ushant, which is at the entrance of the north channel into Brest, where French trawlers and Ameri-

can yachts were waiting to pilot them into port. When the weather was too rough, or if for other reasons the convoy from England did not run, the yachts and French trawlers were sent out to patrol off Ushant in the English Channel just the same and spent many a nasty night at this work.

The approach to Brest and the inshore channels of the west coast of France possesses unusual difficulties in navigation. Sailing directions warn vessels bound from the coast of Spain to England to pass at least 40 miles from Ushant (the outer landmark of Brest) in thick weather and even in clear weather to close the island no nearer than 10 miles. It was along this kind of a coast that the work of the coastal convoy lay. The entrance into Brest from the North can be made either by rounding the Isle of Ushant to the westward or by using one of two channels between the Isle of Ushant and the mainland, called respectively the Helle and the Four. The convoys always used these two channels though they were none too wide, and the currents were strong. The Germans had a habit of mining the Four and the Helle once a month but the French, either by some marvelous instinct or through accurate information, nearly always swept up the mines in time and few ships were lost. It was the duty of the French trawlers and the American yachts to lead convoys through the Four and the Helle both coming in and going out of port. The captain of the French trawler *Renard,* under whom the *Harvard* operated for some months, later lost his life and his ship by striking a mine in the Four Channel while leading a convoy out of Brest to England.

Leaving Brest for the south on the second leg of the system, the convoys used the tortuous channel of the Raz de Sein and followed the coast closely. After rounding Pen March Point, the convoy stood through the narrow channel of the Glenans and then along the coast again into Quiberon Bay, near St. Nazaire. The point of the route most dreaded by the convoys was Pen March. Here the giant rays of a high powered lighthouse silhouetted each ship in turn as she passed, and many times a submarine would pick off a victim. On one of the *Harvard's* first trips down the coast to reinforce the French escort a ship of the convoy just astern of us was blown up. The *Harvard* had passed through the searchlight rays of the lighthouse, and just as the last ship of the convoy was silhouetted a loud explosion was heard and the ship began rapidly to settle and sink. It was quite rough and few survivors were rescued. This light was afterward dimmed to avoid disclosing the convoys.

The convoys ran entirely at night and the yachts were, therefore, out three nights on a stretch—one on the run into the channel, one down to Quiberon Bay, and one returning to Brest with another convoy northbound.

On the trip into the channel the first night the yachts would reenforce the British trawlers and remain with the convoys until about midnight and then turn around in time to be off Ushant the following morning in order to meet ships coming from England and pilot them into Brest. After a German submarine had torpedoed four ships in one convoy at night near Pen March Point without being seen, the night convoys were abandoned and the ships ran only by day. This catastrophe occurred on the night of January 5, 1918. A convoy of 15 ships had sailed from Brest in the late afternoon, escorted by the yachts *Wanderer* and *Kanawha.* The Raz de Sein was closed to navigation by mines, and the convoy was compelled to stand out into the open sea and round the Isle de Sein. The sea was rough and the night was dark. At 11:10 the *Wanderer* sighted a small vessel on the starboard beam which showed a red light toward the convoy. The *Wanderer* made the usual recognition signals, but the suspicious object disappeared. Twenty minutes later the French steamer *Henri Le Cour* was hit by a torpedo and sunk. The night was so dark that her disappearance was not noticed. Shortly after midnight the leading ship, the American steamer *Henry Luckenbach,* was torpedoed. The *Wanderer* was directly astern of the *Luckenbach* and was compelled to go full speed astern to avoid collision. Despite the grave danger involved the *Wanderer,* commanded by Commander P. L. Wilson, turned on her searchlights and from the wreckage rescued 26 men who, when gotten aboard, were rigid from the icy waters. The *Harvard* at this time was passing Pen March alone, enroute to Brest, and hearing the SOS of the *Henri Le Cour,* searched the area until daylight in the hopes of rescuing the survivors, most of whom, however, had been able in the meanwhile to land near Pen March.

(*Continued on page 264*)

Quarter deck of the *Noma* in a Bay of Biscay sea, showing depth bombs ready to let go

The convoy in formation, seen from the stern of the escorting yacht

The Month in Yachting

The Trans-Atlantic Race

I HAVE been taken to task for not publishing more news in our last issue concerning the proposed Trans-Atlantic Race this summer. I plead guilty, but offer, in extenuation, that there was absolutely no news to get. Not a thing has happened since we published the announcement and the story in our March issue of the history of the Trans-Atlantic Races, and so far as we know there has been only one meeting of the committee. It is certainly up to somebody to show a little life and get busy on this proposition if it is to be put through this year. There are rumors of owners who are willing to go, and who are ready to enter their yachts, but no formal entries are forthcoming. The only way to go ahead with this thing is to stop talking and show a little action by actually entering.

It is rumored that Mr. H. S. Shonnard is ready to enter the schooner *Sonnica,* formerly the *Savarona.* The yacht is fitting out at the present time, but at this writing has not been entered. Neither has the *Intrepid* been entered, although there is talk of her going. *Elfay* is laid up and no move has been made that would indicate that she is going, while no definite word comes from the owners of a number of other schooners that would make ideal entries for this event, and that would have a good show. A prize will probably be offered for the boat finishing second, and this would be an incentive for some of the smaller schooners to go in, although we still believe that some of the smaller, lighter boats would have a good chance against the larger, heavy vessels in the event of light weather being encountered.

It is unfortunate that the race was promoted in a year when the financial situation and the industrial uncertainty of the entire world make yacht owners hesitate about entering. This race probably means more to the general public and would create more interest than any other sporting event that could be put on. It is a shame to have it taken up in such a half hearted manner by yacht owners. If the year seems unpropitious for such an event, it might be wise to postpone it until next season, if there is any assurance of getting more starters at that time; but if yacht owners don't want to lay themselves open to the charge of not having the sporting blood in their veins of those of past generations, and of not having the nerve or the boats for such a race, they should at least show more interest in promoting this event than they have yet done.

Yank, a class "R" boat, which has just been added to the fleet of the Chicago Y. C.

A New Class "R" Boat for Lake Michigan

THE fleet of class "R" boats on Lage Michigan is going to have at least one newcomer to reckon with this summer. This is the *Yank,* recently purchased from Commodore Emil G. Schmidt by Ogden T. McClurg of the Chicago Yacht Club.

The "R" class has been very popular on Lake Michigan and the Lipton and Nutting cups are both raced for by the class. *Rainbow, Sari,* and *Gossoon* are all owned in Chicago and are raced regularly, while in Milwaukee there is the *Dixie,* which races with the Chicago fleet.

The *Yank* should do well in this bunch and will add a lot of interest to the class. She was designed by John Alden and built in 1917, not being finished until late in the year. Commodore Schmidt raced her on Lake Erie for two years and last season was very successful with her. What he will do for a boat to take the place of *Yank* he has not yet confided in us.

Mr. McClurg has raced in the "R" class before, having sailed *XXIX* on Lake Michigan before the war put an end to racing. He has also raced in the "P" class.

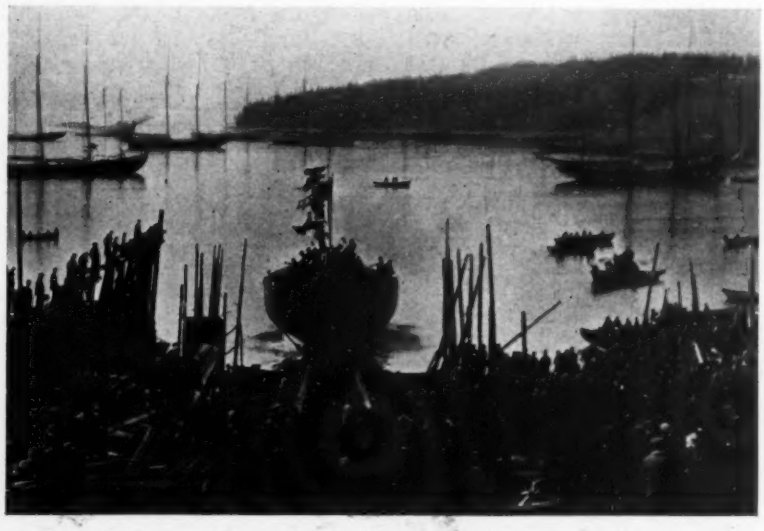
There is talk of an international race with the Royal Candian Yacht Club, of Toronto, in the "R" class.

The N. Y. Y. C. Cruise Again

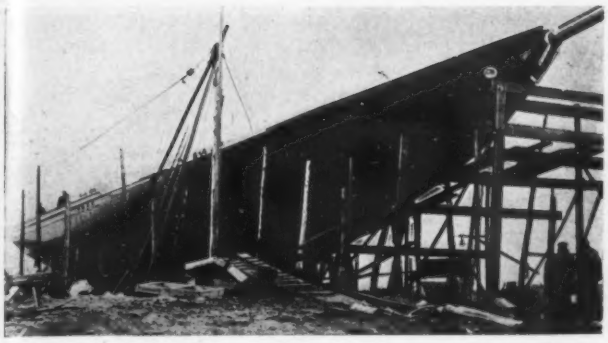
Announcement has been made that the N. Y. Y. C. will sail its annual cruise again this year. This is good news, and insures a fine yachting season, as it is the first time that the yacht club has made the cruise since the Great War started.

Commodore J. P. Morgan, at the meeting at which the plans for the cruise were announced, told the members that he wanted every one of them that owned, or could charter, a yacht to be at the rendezvous at Glen Cove and to help make this cruise the best one ever sailed. From the enthusiasm which greeted the announcement there is no doubt that the members felt the same way the commodore did about it.

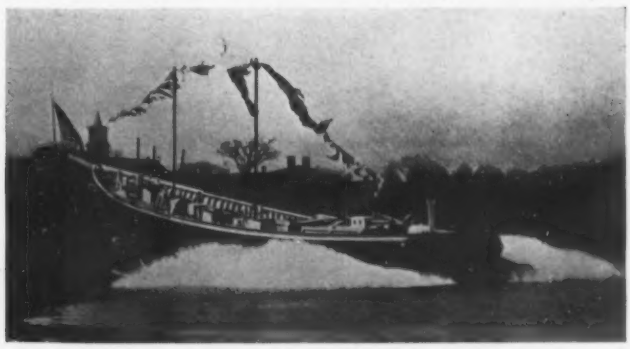
The fleet will rendezvous July 25.



Schooner *Bluenose,* which carries the hopes of the Nova Scotia fishermen, going overboard at Lunenberg. She has beautifully modelled sections



The bow of the *Mayflower*, with her long overhang resembles a yacht more than a fisherman



The *Mayflower* going overboard from her builder's yard at Essex, Mass.

The races will be from Glen Cove to New Haven (Morris Cove), July 26, New Haven to New London, July 27; New London to Block Island, July 28; Block Island to Newport, July 29; Astor Cup races, August 1; and King's Cup race, August 2; both being sailed off Newport.

Long Island Sound Yacht Racing Schedule

The following is the racing schedule for the season of the Yacht Racing Association of Long Island Sound:

May 30—Harlem Y. C.
June 4—Knickerbocker Y. C.
11—Manhasset Bay Y. C.
18—New Rochelle Y. C.
25—Seawanhaka Y. C.
July 2—American Y. C.
4—Larchmont Y. C.
9—Indian Harbor Y. C.
16—Start Race Week, Larchmont.
19—Port Washington Y. C.
23—Last of Race Week, Larchmont.
30—Orienta Y. C.
Aug. 6—Stamford Y. C.
13—Huguenot Y. C.
20—N. Y. A. Club.
27—New Rochelle Y. C.
Sept. 3—Seawanhaka Y. C.
5—Larchmont, Labor Day Regatta.
10—Indian Harbor Y. C.
17—Hempstead Y. C.
24—Manhasset Bay Y. C.

Special events of the season on Long Island Sound are, the Manhasset Bay Cup Series, June 20, 21, 22; N. Y. A. C. Block Island Races, July 9 (Power and Sail); A. P. B. A Cruiser Championship, August 6.

A New Yachting Association for the Gulf

A new yachting association has been formed by those yacht clubs that are located on the Gulf of Mexico, which should do much to stimulate racing and yachting generally on those waters, which are ideal for yachting. The suggestion was first made last year that the clubs on these waters form such an association and the idea was taken up so enthusiastically that a committee of prominent yachtsmen was appointed to draw up a constitution and by-laws. The association, which is known as The Gulf Yachting Association, will embrace all the yacht clubs on the Gulf Coast, and the following clubs have already come into the new organization: The Southern Yacht Club, New Orleans, Louisiana; Houston Launch Club, Houston, Texas; Biloxi Yacht Club, Biloxi, Miss.; Eastern Shore Yacht Club, Mobile, Ala.; Pensacola Yacht Club, Pensacola, Fla. The St. Petersburg and the Tampa Bay Yacht Clubs, and the Southern Pascagoula Yacht Club are also expected to become members.

These clubs have a combined membership of approximately 6,000, and in the first five there are excellent racing fleets. The association will do much to bring about more inter-club racing than at present, and will promote additional power boat events, as well as sailing races.

The first board of governors of the new association is as follows: Commodore Percy S. Benedict, Southern Yacht Club; Commodore E. B. Overton, Eastern Shore Yacht Club; Commodore W. T. Glass, Houston Launch Club, and Commodore A. Swanzy, Biloxi Yacht Club, with Commodore John H. Cross, Pensacola Yacht Club as President of the Association and sitting as one of the board of governors. W. E. Frederick of the Pensacola Yacht Club, was chosen Secretary-Treasurer.

Launching of Mayflower and Bluenose

A good deal of interest has been evidenced in the last month over the launching of the two fishing schooners, which, it is supposed, will take part in the International Fisherman's Race off Halifax, next fall.

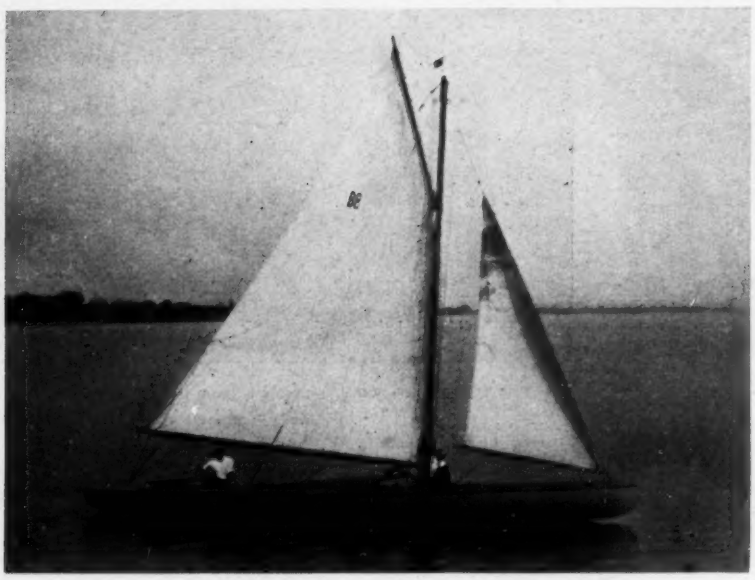
The first of these to be launched was the Nova Scotia schooner, the *Bluenose*, which went overboard at Lunenberg, Nova Scotia, in March, while the *Mayflower*, the American boat, was launched in April. Both boats were immediately fitted out, and have left for the banks.

The boats show a marked difference in design. The *Bluenose* is a handsome vessel of the conventional Nova Scotia type, with beautiful sections and a full underbody. While she looks as if she would be fast, she does not appear to have sacrificed anything for speed.

The American schooner, however, is a radical departure in hull design from vessels of this class. She was designed by W. Starling Burgess, and shows the influence of the yacht in many points, particularly so in the long forward overhang, with the forefoot cut away and the lateral plane well aft. On the ways, looking at her from forward, she looks more like a yacht than a fishing schooner. Her rig also is very high and narrow, and one misses the long main boom familiar in fishing vessels. She should be fast, but we understand that she is not received entirely without criticism by the fishermen of Gloucester and Provincetown, who look for something besides speed.

There has been some feeling in Nova Scotia that in her design she rather evades the spirit of the Deed of Gift for the cup, in that she is built more on yacht lines than on fisherman's lines. We do not think that this criticism is justified yet, or will affect the race in any way, for she may prove herself an unusually able and profitable vessel and be the forerunner of a new type, just as the knockabout type was a modification of the older design some years ago. We believe she will be fast, but beyond that are not prepared to say at present.

In size the two schooners are about the same length over all, the Nova Scotian being longer on the water, and having 15 inches more beam. The full dimensions of the boats have been given in previous issues of YACHTING.



Samoset, a Class "B" boat of the Royal St. Lawrence Yacht Club. Her last year's crew will sail a new boat in the International Cup trials

Canadian-American International Cup News

The presentation by Mr. G. H. Duggan of an international cup, called the Royal St. Lawrence Challenge Cup, for competition between yachts of the "B" class of the Inland Lake Yachting Association of America, and the challenge of the White Bear Yacht Club for this trophy, as told in a former issue of YACHTING, have aroused a lot of interest among American and Canadian yachtsmen. The splendid sporting spirit shown by the White Bear Club in challenging for the trophy will be appreciated when it is remembered that in the years before the war the American Club made three trips from St. Paul to Montreal to sail against the Royal St. Lawrence Yacht Club.

The match this year will consist of three races to be sailed between two boats representing each club, the club winning the greatest number of points taking the cup. The races will be held on Lake St. Louis over practically the same course as that on which the races for the famous Seawanhaka Cup were sailed. The dates agreed on for the races are July 23rd, 25th and 26th.

A great deal of enthusiasm is being shown in the Canadian metropolis over the race, and it is being looked forward to as one of the most interesting sporting events of the coming summer.

Four new "B" class yachts are being built by members of the Royal St. Lawrence Yacht Club for the race, and as *Zohra*, owned by G. H. Duggan, champion of her class in 1914, 1919 and 1920, and *Red Patch*, G. V. Whitehead, which was built last year and came second in the championship, are to be completely refitted with new sails and hollow spars, this will give the Royal St. Lawrence Yacht Club six boats from which to choose the two defenders of the cup.

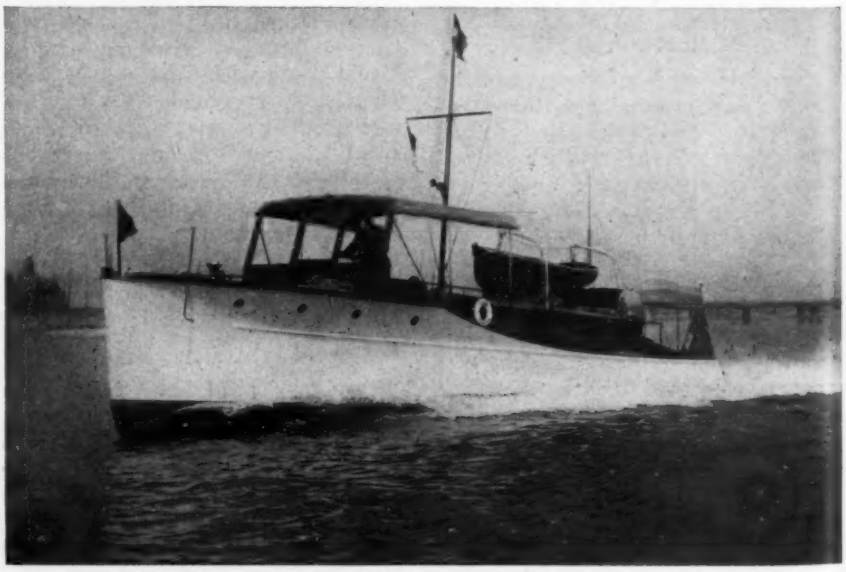
One boat is being built by the following syndicate: F. W. Molson, Hon. Smeaton White, A. J. Brown, C. E. Neill, Frank Scott and Col. Herbert Molson, while the other three are being built by J. K. L. Ross, Roy M. Wolvin and R. C. Stevenson.

The crews which will handle the yachts in the preliminary racing have nearly all been chosen, and as the boats are practically completed they are looking forward to an early start in the tuning up of the various craft.

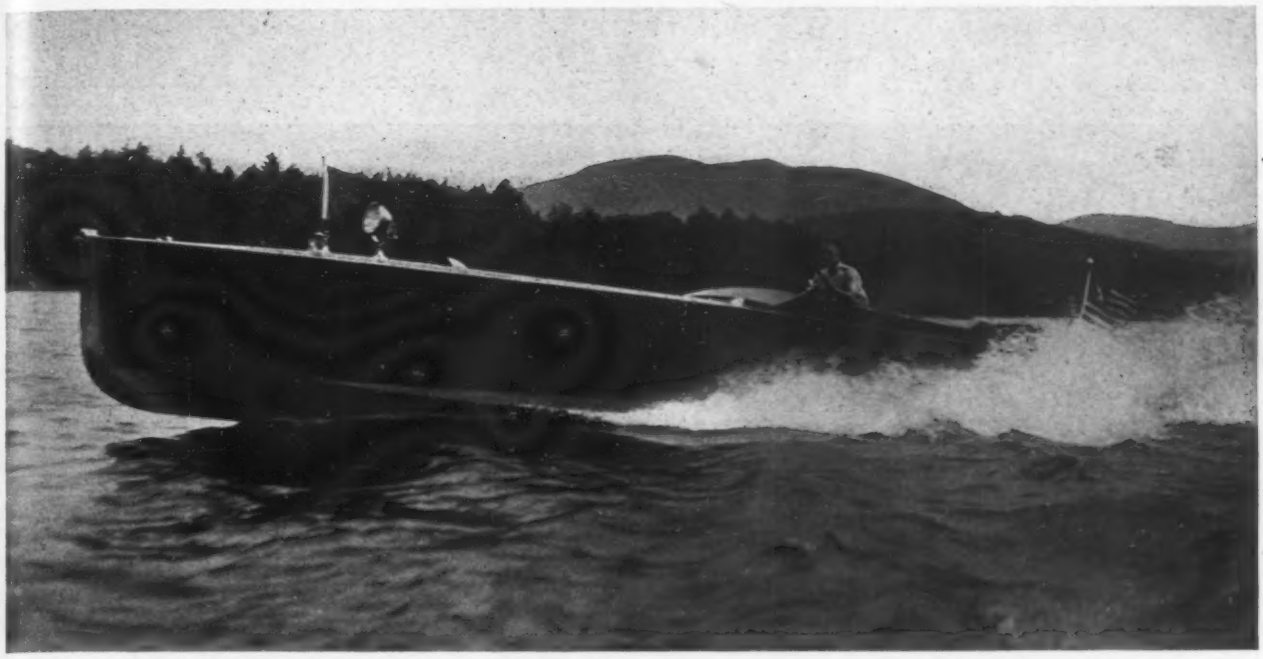
The crew with the most experience will be the one which will sail J. K. L. Ross's yacht, including as it does three well known international sailors. C. H. Routh, who had the stick on a number of the Seawanhaka Cup defenders, will be the skipper, while with him will be Wm. C. Finley, who has also sailed in the races for this trophy. Another member of the crew is H. J. McAdie, who, while a newcomer to Lake St. Louis, has sailed on yachts representing the Royal Canadian Yacht Club, Toronto, in international races. The fourth member of the crew, F. M. Badgeley, has owned and raced a "B" class yacht for two or three seasons.

The syndicate boat will be handled by A. T. Paterson, skipper, H. W. Paterson, J. MacDougall, and N. Macaulay. Before the war A. T. Paterson and H. W. Paterson owned and raced the "B" class yacht *Pandora*, and the former was recently elected Rear Commodore of the Royal St. Lawrence Yacht Club. J. MacDougall has sailed on several "B" class boats, and in 1913 was on one of the yachts which represented the Royal St. Lawrence Yacht Club in the International Races with the Thousand Island Yacht Club, while N. Macaulay is a newcomer to the racing yacht.

Roy M. Wolvin's yacht will be sailed by G. S. Parke, skipper, M. Peiler, R. Chadwick, and W. Stevenson. The first two were on *Zohra's* crew when she won the class championship last year and previous to that had considerable racing experience. R. Chadwick owned the 3-rater *Lakme*, but up to this season has not had much experience of the "B" class. W. Stevenson is another recruit to the



Tofa is a fine example of the round bilge express cruiser. She is a new boat, 48 feet long, makes 20 miles per hour, and is owned by George Gorham Peters, of Boston



A few years ago a speed of 35 miles or better was only possible at the sacrifice of every other consideration. To-day it can be had in comfortable and roomy runabouts. This is *Bee*, a 35-footer, owned by Jules S Bache, of New York

sport of sailing in these waters.

The crew of R. C. Stevenson's new boat will have A. S. Poe, skipper, J. G. Notman, and R. C. Stevenson, with the addition of a fourth man, later. These three sailed the "B" class yacht *Samoset* in last season's racing.

The *Red Patch,* owned by G. V. Whitehead, will be handled by the same crew who so successfully sailed her last year when she only lost the class championship by one point, namely, G. S. Hamilton, skipper, G. V. Whitehead, E. Manhire. This year they will have as fourth man, J. Hunter, who for the last two seasons owned and sailed the Seawahaka Cup Class Yacht *Dorval.*

The champion of 1914, 1919 and 1920, *Zohra,* will again be sailed by G. H. Duggan, with C. Hope, Geo. Evans, and a fourth man as crew.

Tofa, A 48-Foot Round-Bilge Cruiser

There has been considerable discussion between the advocates of the V-bottom and round bilge types for fast power cruisers, each type having certain advantages which these partisans made the most of. One of the recent boats of the round bilge type is the *Tofa,* a 48-foot fast cruiser, built at Neponset for Mr. George Gorham Peters of Boston. In spite of the fact that she has 10 feet 7 inches beam and 3 feet draught she drives very easily on her power.

Her power plant is a special GR 6-cylinder Sterling engine of the overhead dual valve type, the engine having been built with slightly lower compression for this particular boat. While the normal compression of these motors is probably 10 per cent under the customary practice for high powered engine, the unusually low compression of the motor in Mr. Peters' boat, enables him to run it at any speed from 400 to 1,200 r.p.m. with scarcely any perceptible evidence that the engine is in operation. The *Tofa* cruises at 20 miles an hour.

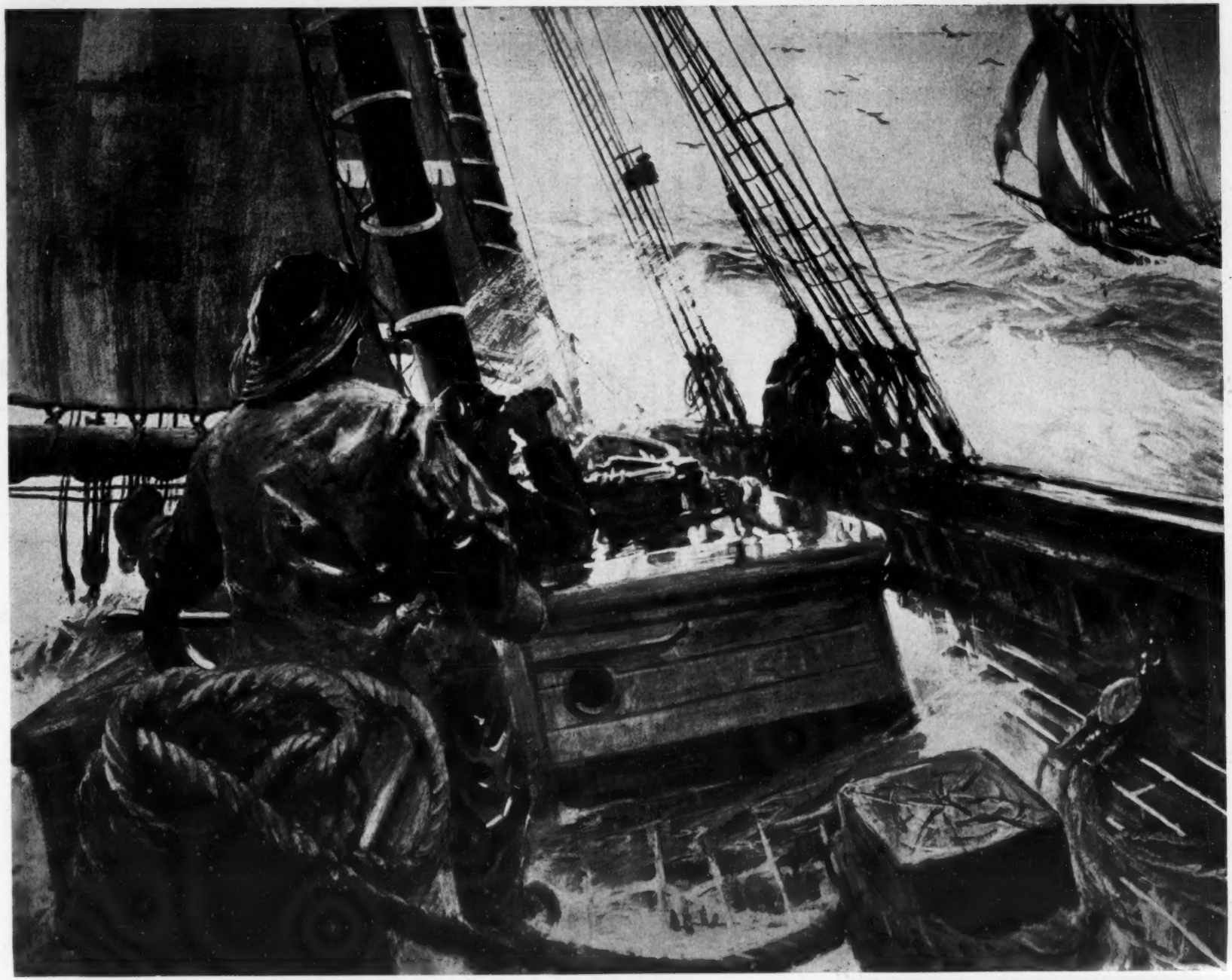
There are a number of original ideas in her construction which are worth while mentioning. The galley is forward and there is no bulkhead between it and the engine room. On each side of the engine room the bridge deck has been raised so there is full head room in this compartment except directly over the engine. The effect of this on the bridge deck is to have a sunken portion for the helmsman, while the raised portion is used as seats. The advantage of this head room in the engine room will be quite apparent to those who have had to do with bridge deck cruisers. Abaft the engine room there are two cabins, one of which is for the exclusive use of the owner, and there is a very wide cockpit aft. The arrangement is such that the owner and his guests are entirely isolated from the machinery and the galley and every portion of the vessel which has anything to do with operation and maintenance is entirely separated from that portion given over to living quarters.

A 35-Mile Runabout

Only a few years ago a 35-mile speed was impossible in anything except an over-powered racing hydroplane; but to-day, 35 to 40 miles is what one usually wants when he gets a runabout. The principal requirement at the present time is not only that the boat must get one "there and back," but also get him there a little ahead of the other fellow. With improvement in the design of this type of boat, and the refinement in marine engines, this speed is now possible without, in any way, curtailing the seating capacity, comfort or luxuriousness of the boat itself.

One of the best examples of this type is the *Bee,* an unusual picture of which we reproduce here. This boat is owned by Mr. Jules S. Bache, of New York City, and she is used principally on a lake at his summer home in the mountains. She was designed by the Albany Boat Corporation, and is powered with a six-cylinder 200 H. P. Hall-Scott marine engine, which drives her at fully 35 miles an hour.

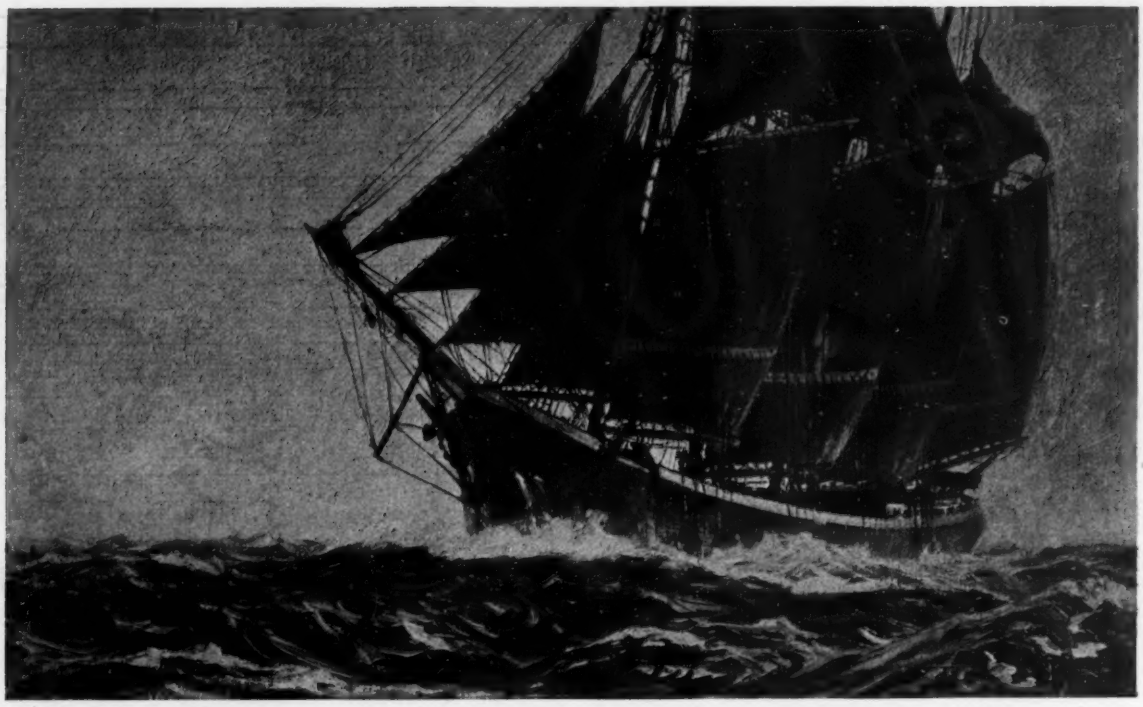
The *Bee* is 35 feet in length and she represents the very latest product in an up-to-the-minute family runabout, combining extremely high speed with comfort and safety. There is room in her cockpit to seat a good sized party. In design, she is of the V-bottom type with the chine coming fairly well up on the stem, making a very graceful bow. That she is well balanced is shown by the angle at which she runs and lifts out of water.



The race! Coming home from the Banks and "carrying on" to be the first to make the market
From a painting by C. R. Patterson

The race! Coming home from the Banks and "carrying on" to be the first to make the market
From a painting by C. R. Patterson

Running the Easting Down. From a painting by C. R. Patterson. This, and the painting on the opposite page, are from a collection of sea paintings by this artist, recently exhibited for seamen at the Seamen's Institute, New York



Full and By. A painting by C. R. Patterson, recently exhibited at the Seamen's Institute

Paintings of Ships and the Sea

By CAPTAIN FELIX RIESENBERG

A STOCKY man with close cropped iron gray hair, high cheek bones, and a nose flattened over to port, looked out of a pair of very blue eyes. He shifted his quid and slowly turned from the painting of the famous American Ship *Benjamin F. Packard,* hung in the loan exhibit of C. R. Patterson's sea paintings at the Seamen's Church Institute, New York, at which he had been looking.

"I was in the bark *Wandering Jew,* when we fell in with the *Packard* at Hong Kong," he said'

"What year was that?" The man asking the question stood a foot or so above the first speaker. He was dark, browned to the point where only his coarse straight black hair and a hard, clear look in his eyes distinguished him from kinship with the negro. The two sailormen before the picture faced each other.

"1890, or near that." The first speaker, an old deep water foremast seaman, spoke less harsh, for the tall browned man was a sailing ship mate, and his words were spoken with that habitual arrogance grown out of those old hell-wagon days that the picture of the ship *Packard* brought to mind.

"Well, I shipped out in the *Packard,* and back in the *Wandering Jew.* Her decks was always like that," the tall man pointed to the white planks on the floor of the Apprentice Room of the Institute, "and, believe me, she was *some* flash packet—the *Jew,* I mean. —— Nichols had her, and sailed her till a crew of squareheads burned her up on him in Hong Kong harbor. It was the only way the poor skows could get away."

"I was in her out o' Frisco," the old seaman spoke slowly. "They'd just run the crew ashore and the *Jew* was going over to Shanghai with a West Coast crowd. The Captain's daughter was on board, an' one day she says to papa, that same —— Nichols 'Papa, why don't you knock them men around the way you always do?'

" 'Them men is gentlemen,' he replies, an' goes right below. An' you bet they was gentlemen—gentlemen what carried shootin' irons an' bowie knives, an' the Old Man knowed it, too. But he worked them all out of her in Shanghai an' shipped coolies to Hong Kong."

The men at the Institute crowded about the pictures, little knots jammed about the canvases. The men are slow to talk, but one by one their minds go back to days in sail and to scenes off on the far oceans of the world where men live lives of action under sail.

Running The Easting Down, a large canvas in oil, shows an iron bark driving before the heavy westerlies under fore and main lower topsails, reefed foresail, and foretopmast staysail. The crest of a great sea is rising under her counter, her nose is plunging into the back of the great wave riding ahead and the strong lifting pull of the great foresail is picking up her two thousand or more tons and hurling them onward to the east. Ragged, dull clouds tear by overhead, the whole aspect of sea and sky spells action.

"You got the feel of it," the old seaman, Connor is his name, said to Patterson, the artist, also a deep-water sailor. "That water looks a mile deep an' the sky ain't more'n a foot over the main truck."

A crowd hung about the painting called *The Albatross,* showing a huge bird soaring close to the water and far ahead of a large ship bowling through a lumpish sea that always hangs on after a blow. The sky is lighting up and as the wind is moderating the crew are again setting the kites. The courses and topsails are set, the main topgallant is up and the fore topgallant is in the gear and being sheeted home.

"See that Jack goin' aloft to over 'aul the buntline?" a little Limey sailor remarked. "I bet the bloody beggar left the twine on deck an' 'as to lay down for it. Hi did this

once on a Yankee work'us, blawst me 'ide, an' the Mate 'e hup an' bangs me a dirty wallop on the 'ead."

"Ye see that bird?" one man, a red faced, blue coated, clean looking sailor remarked. "Well, son, that's an albatross all right." The youngster with him was evidently his chum, one of those old man and kid friendships. "Well, they get to be twenty feet from tip to tip—it's a mean bird, a dirty mean bird. We lost a man overboard from a ship I was on, the *Tillie Starbuck,* and we hadn't no need to send a man to the crosstrees to watch for the poor fellow. All we had to do was watch them birds circle over him. The Mate, he luffed up, and backed the main yards and the Old Man sent the life boat over with the Second Mate. 'Here, you take this,' and the Old Man slipped a shot gun in my hand as I jumped in the boat. Would you believe it, them birds was pickin' at the poor fellow. Picked his fingers off as he fought 'em, and just when we got him they picked out both his eyes. The water was bloody and we dragged him in the whaleboat a crying an' cursin' them birds. The Second Mate he up with the gun and lets fly, for they was comin' down on the boat. We heard the shots rattle in their feathers, but only scared 'em."

The youngster stood with wide open eyes taking in the story and looking into the picture far beyond to the ship and in back of it to the tragedy in the story of the sailor.

"Yes, the poor fellow he died a week later, and just as well, I guess—he had no fingers and no eyes."

From picture to picture the men walk and talk in undertones at this most unique exhibit. Landsmen here in the United States for the most part seem blind to the beauty of ships and the sea. The great galleries are filled with thrilling studies of vegetables and smeary portraits of ancient beer guzzling burghers. But the great wide romantic seas of the world find no place in the imagination and in the work of the artists. A Homer Winslow comes to the fore, seeing ships slightly, and well, but what of the deep sea, of the vast complications of rigging and the atmosphere of romance and of color so richly spread over the waters far from shore? Mr. Patterson has caught a splendid spirit in such paintings as his *End of the Voyage,* showing the ship *Trade Wind,* at a wharf, her rust streaked hawse, her great yards and her air of real and potential magnificence permeating every part of the whole.

"It's the real thing, sure." A few men were lingering over every detail of hull and gear. No jury of artists ever go into the merit of a canvas with half the critical perception of a sailor looking at a painting of a ship. Perhaps this may account for the very few paintings of ships that survive the test of time. Sooner or later some real salt will blow into a gallery and strip the glory from the most "artistic" ship that was ever painted, unless it is also technically correct.

The Doldrums shows a bark becalmed in the belt of hot and stagnant calms. This is reminiscent of many days and weeks of enforced idleness that seamen of sailing days all know—days of rest and sleep and of feverish waiting for a breeze while the weevils and salt horse seemed to choke the listless men gathered about the kids at meal time.

A large schooner close hauled on the starboard tack is a splendid picture, and the scenes of Gloucester fishermen on the banks and racing home are a very real part of the exhibit.

Yachtsmen who saw the paintings were specially interested in the water color of the New York Yacht Club Forties, showing Mr. J. E. Hayes' *Zilph* in the foreground. This painting was loaned by Mr. Hayes for the exhibit.

[Yachtsmen may be interested to know that these paintings will be on exhibition at the Schultheis Galleries, 142 Fulton St., N. Y., from May 9th to 21st. Anyone will be well repaid by dropping in to view them during this period. Ed.]

Before the Mast in War Time

By H. S. LAWRENCE

An Eight Months' Cruise in a Wind-Jammer Through the Submarine Zones—Part VII

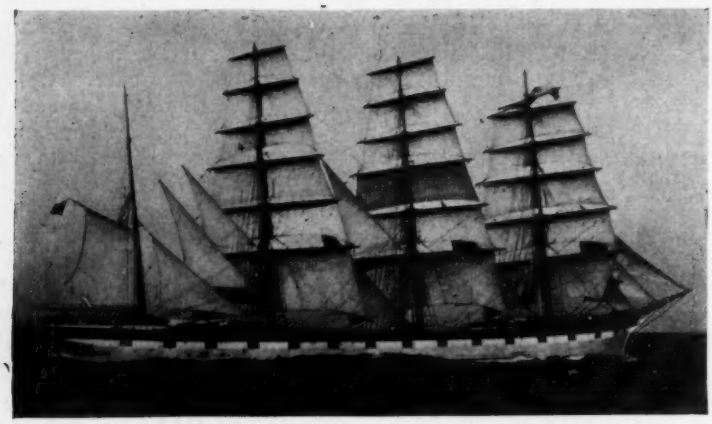
OUR joy at getting away from Axim and the coast was short-lived, for the next month was the most trying I can remember having spent on shipboard, and all prospects of a fast passage home faded as the days passed. This was due to the light baffling winds and calms we encountered before we turned the corner from the Gulf of Guinea and struck the Northeast Trades.

There is a strong current setting to the eastward along this coast, which we had to buck, and for the most part we had no wind to buck it with. Our experience in the doldrums on the passage out was nothing as compared with what we now encountered. We would usually get some wind from the south or southeast during the day, or at least for a few hours during the day, to which we would trim the yards and make some four or five knots through the water; but before dark this would always peter out and then we'd slat around with yards banging, sails hanging limp, and reef points beating a tattoo on the canvas, while the ever present current would set us back about all we had gained. At the end of 30 days we had not turned Cape Palmas, and I heard the Old Man say one morning, as I was leaving the wheel at eight bells, just as he came up from working up his forenoon sight, swearing to himself, that we were only 100 miles west of where we had started from. One hundred miles in 30 days! It sure was disheartening.

The skipper and mates chafed at the delay and were fretful and nagging, and in the foc's'le the discontent was reflected in an irritableness which made us surly and peevish.

"We'll never get clear of the bloody coast," said Bill Sykes, the Cockney, "an' the —— —— cook will starve us if this keeps up much longer. What kind of grub is this he's handin' out, anyhow, to feed white men on? Nothin' but oatmeal for breakfast, salt beef for dinner and cracker hash, and precious little of that," and he shoved back his empty plate after cleaning off the last mentioned mess at supper one evening.

"What to hell are you grousin' about? It's more'n you ever got in a Limey in your whole life," said Frank Allen. "You've no cause to kick—yet. I heard of a schooner while I was on the beach at Monrovia that was 61 days out of Lagos last year without gettin' anywhere, and then had to put in where she started from and get a tow of 600 miles to get her clear. He was lucky to find a towboat there, at that.



A four-masted British bark, evidently bound out for South America, running down the Trades

I guess we're all anxious as you to get home, but kicking at the grub won't help. Why didn't you stick to steam if you were in such a hurry?"

The bark was loaded deep with mahogany and was logy on account of her bottom, which had fouled badly during our long stay on the coast so that she would not sail her best, and the mates had us trimming yards and sweating up on stretched halyards all the time to make the most of what wind we had. Mr. Elder also chose this time to scrape and oil the masts and kept us working aloft in bos'n's chairs most of the time. With the rolling of the bark in the long swells this was hard work, as we had to grip the mast with our knees, or keep one arm around it to keep it from swinging like a pendulum from side to side, while we worked as best we could. Luckily for us the yards were painted, and did not require scraping, but we had to paint them, sitting on the foot ropes with a pot of paint slung under us. With the equatorial sun beating down on us and the long, sickening roll, which never ceased, this was trying work. The two men recovering from the fever were not sent aloft for this work, so that it fell on the other six of us, and instead of speeding up to get through it, and to some other work on deck, we loafed on the job, "sojering" all we could whenever the mate was not looking. This made him mad, and when the job was finally finished, he sent us aloft to put new chafing gear on braces and backstays or to serve them wherever they were worn.

Toomey came down one day after doing a particularly rotten piece of work on the pennant of the fore to'gallant brace, and Mr. Elder met him with "What kind of a job do you call that, you red-headed stiff? If you think you can get away with that because they let you in the union as an A.B. before you shipped, you've got another guess comin'. Up you go again, take all that servin' off and do it over."

"It's eight bells, and I'll do no more today for you or for the Old Man, either," answered the belligerent one, his Irish blood rising.

The mate started for him with a rush, which Toomey ducked, and the two clinched and surged back and forth over the deck load. They were about of a size and for some time it was doubtful which would get the upper hand. The mate tried to hit in the clinch, but his blows did not have force in the position in which he was, while Toomey tried to trip the officer and get him down. The rest of us dropped our work and took in the fight from wherever we happened to be. In the struggle the swaying figures got very close to the edge of the deck load, where only a life line between the fore and main rigging would keep them from getting overboard, and as they neared this, a cry of warning went up from Victor Johnson, who was near them. This brought the Old Man up to see what the noise was about, and when he saw the trouble, he went to the mate's assistance, pulled Toomey away, so that the mate was free, and as the latter rushed at the sailor again, the skipper checked him with "No more of that, Mr. Elder. This has gone far enough this way. Get the irons and we'll keep this man locked up until he knows his place."

It was quite different from the old days, when most skippers ignored difficulties between their officers and the crew or backed up their mates in any fights they got into and sometimes stood by with a gun to keep the rest of the crew off.

So the bracelets were slipped on Toomey, and he was kept in the engine room all night to meditate upon the results of too ready a tongue. The rest of us for'ard were divided in our sympathy, the newer hands being all for the little Irishman, while the old timers did not waste any sympathy on him.

"He's no sailorman and he deserved to get called for the bum job he did," said Jensen. "He knew he'd have to do it over, and he'd have known enough to have kept his mouth shut if he'd been to sea a little longer. The union's all right when you're ashore an' to get wages raised, but it won't help you a damn bit in a mess of this kind when you're at sea."

Toomey was kept in irons for three days, and was logged for refusing duty and assaulting an officer. The former he did not mind as it saved him further work aloft. When he was finally released, however, the mate had it in for him and all the dirty jobs there were fell to him for the rest of the voyage.

Finally, after 35 days, we had made to the westward of Cape Palmas and could work to the north'ard, while we were at last out of the easterly set and thus held what we gained. And at last one day we struck a little air from the northeast early in the forenoon, which strengthened slowly but surely until by late afternoon we were slipping along at some six knots and trailing a long white wake astern. There was no sign of its going down at sunset and everyone, fore and aft, had a smile on his face.

"Trades at last," was the remark on everyone's lips.

"Thought there wasn't any such thing any more, but guess I was mistaken," said Hansen, coming forward from the wheel. "The Old Man, he looked pleasant the first time in a month. 'Northeast trades, at last' he said to the mate, 'an' they look as if they'll be strong.'"

Even Joe, the black cook, seemed to feel the change and we got canned corned beef for supper that night and a pan of hot biscuits. The foc's'le was bearable for the first time since we sailed and we ate in it instead of taking our plates up on the deck load to eat in the air as we had been doing for supper ever since we struck the coast.

The trades freshened that night and we got up to seven knots during my watch. No one can realize the exhilaration of a breeze after long days and nights of calms and to feel the vessel moving and full of life again after being a dead thing on the water for so long. As I took my wheel that night, with the wind blowing the open collar of my shirt, and cooling my whole body,

and found some feel and pull to the spokes, it seemed as if we were at last on our way and that home was not so very far off. Above me the trucks swayed and described circles against a black, star-studded sky as we lifted over the long swells, and the sails, rounded and with full draft in them, stood out sharply against the night so that, steering full-and-by as we were, I had no trouble in keeping the weather clew just lifting. I was really sorry when I was relieved and went forward to spend the last two hours of my watch curled up on the foc's'le head.

The trades blew fresh for two weeks, increasing as we worked up towards the latitude of 15° and kicking up quite a long, even sea with cresting tops as we left the African coast behind us. It got so fresh we finally had to take in royals and to'gallant staysails, but the Old Man hung on to the to'gallant s'ls, trying to make up for the long delay. We made some of the best runs of the passage here, doing as high as 240 miles in one 24 hours, while we had several days' runs of over 200 miles. Considering the state of our bottom this was not bad.

On the homeward passage we made a course almost direct to the north of Hatteras, and so had the wind about abeam, or a little abaft it, throughout the belt of trades. This also took us clear of all steamer lanes, except as we crossed the one from South America to Europe, and thus out of any possible submarine area until we should

(*Continued on page 237*)

Speejacks going overboard at the yards of her builder, at Morris Heights, New York

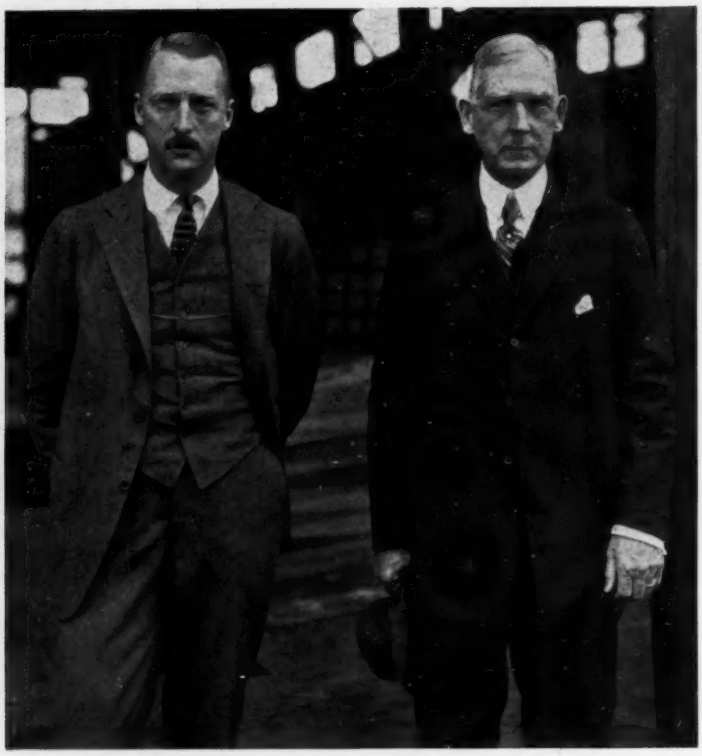
Speejacks Christened with Real Champagne (Cider)

ONE of the largest power boats of the year was recently launched at the yards of her designers and builders, the Consolidated Shipbuilding Corp., Morris Heights, New York City.

This boat is the *Speejacks,* owned by Mr. A. Y. Gowen, of Cleveland, Ohio, a member of the Cleveland Yacht Club. As the boat slid overboard she was christened by Mrs. Gowen, who, with a party of friends and the owner, made up the launching party.

Speejacks is the last of several boats of the same name owned by Mr. Gowen. She is 98 feet in length

The launching party consisted of Mr. A. Y. Gowan of the Cleveland Yacht Club (at right), Mrs. Gowen, who christened the yacht, and a number of friends



J. J. Amory, Pres., and his son, C. G. Amory, of the Consolidated Shipbuilding Corp., builders of the *Speejacks*, and of many of the most famous American yachts

over all, and was designed and built principally with the idea of extended cruising on open waters. She is thus unusually strong and seaworthy, while she embodies every new feature known in modern marine design for boats of this type.

She has a good sized deckhouse forward, is deep and full bodied, giving plenty of room below, and she has ample accommodations for a large party for a long cruise. As told in the last issue of YACHTING, Mr. and Mrs. Gowen, and a party of friends, expect to make a trip around the world on this yacht, arranging to have her towed on the two long jumps which are necessary, one across the Pacific and the other across the Atlantic. The cruise as planned will cover some 32,000 miles.

The photograph gives an excellent idea of the size and looks of the new yacht. She is powered with two 150 H.P. Winton Engines.

A New Zealand Power Cruiser

The unusual photograph on the contents page of this issue is of a New Zealand power cruiser which shows some unusual features that will interest American owners and designers.

This boat, the *Gladys II*, is owned by Mr. C. H. Court, of Auckland, and differs somewhat from the general type of boat in those waters, particularly in regard to the enclosed pilot house amidships and in that she is somewhat faster.

She measures 45 feet long, 10 feet beam, 5 feet 3 inches depth and 3 feet 6 inches draught. She was designed and built by Messrs. Bailey & Lowe, of Auckland, New Zealand. The engine is a Model FM 6-cylinder Sterling, which drives the boat at a speed of 15 miles an hour with the engine operating on only three-quarter throttle.

Summer Cruise for Boys

What bids fair to be rather a novel cruise has been planned for this Summer along lines that we have desired to see tried for some time. It has seemed to us that it would be a fine thing if some one would come along and give a cruise for boys who are fond of the water so that those who desire can learn something about the sea and sailing, which they cannot learn in the ordinary Summer camps for boys. This is exactly what Mr. Bradford H. Willard is doing this Summer. He has chartered through Henry J. Gielow the schooner yacht *Vespa*, in which he proposes to cruise during the Summer with a party of boys, very much in the way boys are taken in a camp.

On this cruise the boys will be given an opportunity to learn how to sail and handle small boats, will help in the sailing and management of the schooner, will be taught the Rules of the Road, the simpler forms of navigation, and the like. It is believed that the cruise will instill in the boys a love for the sea and sailing that will be a source of pleasure to them in the future. The cruise will start from the western end of Long Island Sound, and go as far east as the Maine coast, covering approximately 1,200 miles, while several days will be spent in most of the ports visited.

It is rather an unusual undertaking but one which should make a distinct appeal to youngsters with any drop of salt in their veins, and should help to get them interested in the best of all sports and take them away from the allurements of Summer resorts, motor cars, and the like.

Chicago Planning Big Regatta

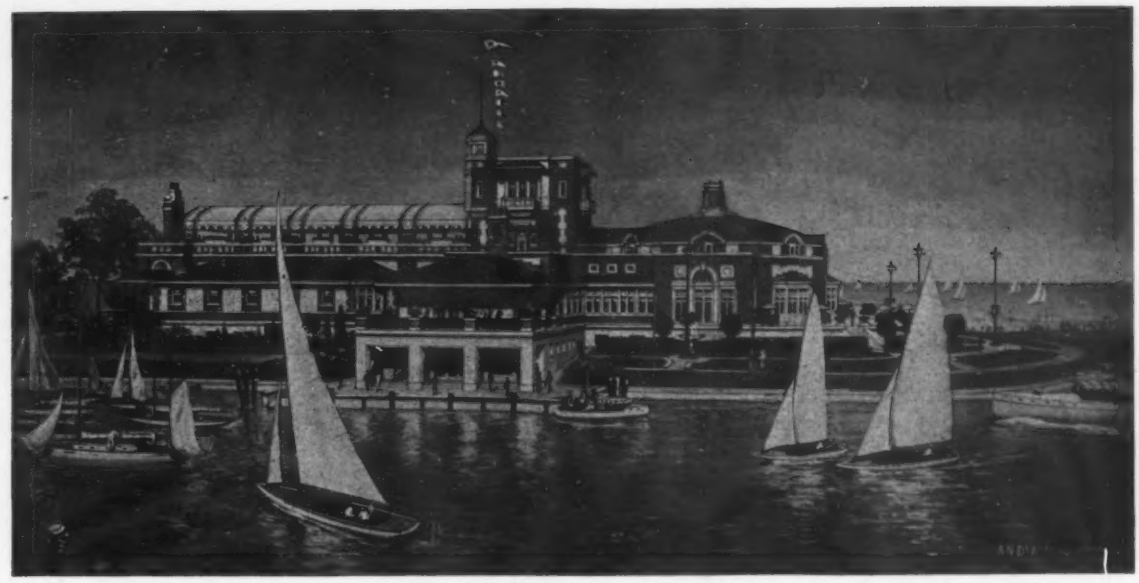
In connection with the exposition to be held in Chicago, July 30th to August 14th, yachtsmen of that city are planning a big regatta to be held on August 4th, 5th, and 6th. There will be races for all hydroplane classes as well as for displacement boats and cruisers, and most of the fastest boats in the country will be present.

Entries have already been received from a number of boats of championship calibre. Commodore Sheldon Clark, of the Chicago Yacht Club, is in charge of the plans for the regatta.

A Submarine Chaser Convention

All submarine chaser men who served aboard these craft in the late war, will be interested to know that the Submarine Chaser Club of America is to hold a convention in New York City on May 20, 21 and 22, the purpose of which is to get together as many of the ex-chaser officers and men as possible, to give them a good time, and to tell them what this club offers.

At the business meeting those men from other centers will be advised of the methods of procedure in forming auxiliary Submarine Chaser Clubs, and of the Navy Department's offer to furnish chasers for their use. All sub-chaser veterans, whether members of this club or not, are invited to the convention, and free sleeping quarters will be provided to all those who advise headquarters of their intention of attending. On the social side, there will be a dance at one of New York's finest yacht clubs.



Architect's drawing of the new home of the Chicago Y. C. in Lincoln Park, on Lake Michigan

Come if you can, but if you cannot come, send in your address, for somebody is going to come who will want to know where *you* are.

The club's official organ is *The Log,* published monthly, and a copy containing the convention news will be sent to those interested, along with any other desired information, by inquiring at Headquarters, Submarine Chasers' Club of America, 28 East Forty-ninth Street, New York City.

Chicago Yacht Club's New Home

A MOVEMENT of considerable importance to yachting, one that will be watched with a great deal of interest throughout the country, is under way in Chicago. Headed by Commodore Sheldon Clark, of the Chicago Y. C., the yachtsmen of the second largest city in the United States are going to try to bring the youngsters who heretofore have not had much opportunity to do any "yachting," to proper appreciation of and active participation in the grand old game.

Here is what Commodore Clark has to say on this subject of getting new blood in the freshwater sailing game:

"Yachting has been altogether too much of a mystery to the people of the lake ports. Only the rich (and very few of these) have been able to learn the game. The war showed us the value of yachting in the development of sailormen. There is no reason why we should not continue the work.

"Everyone knows that it is difficult for the youngster without a boat to get a chance to sail. But it will not be when the new plans for the Chicago Yacht Club have been carried through to completion, for we are aiming to develop yachtsmen just as athletic organizations develop athletes.

"This is the way we are going to do it: The dues for the lads who are eager to sail will be practically nominal. We already have a small fleet of little sloops in which the youngsters are taking an increasing interest. As the club project gets further along this style of craft will increase in popularity and after a a couple of years' work on the little craft the young sailormen will get a chance on the racing crews of the larger boats until they get ready to man the "R" class craft, which we look upon here as the ideal small racing boat for these waters.

"Our membership is increasing at a rapid rate. In fact to-day the club has many more members than it ever had before. Wealthy Chicagoans are joining in great numbers, for our leading citizens are turning to with a will to make the project a success. In fact the way the leaders here are eager to work for the welfare of the club and the city as a whole is one of the most encouraging features of the scheme.

"Our main thought is that, if we teach the youngsters to sail, by the time they become successful in business they will be able to get large boats and in time we shall build up such a fleet here as Chicago ought to have."

The agreement entered into between the Lincoln Park board and the Chicago Yacht Club provides for the leasing of approximately three acres of land to the latter for a period of 35 years for a nominal rental. The club is to begin construction on its new club house by next January and the plans for this structure have been decided upon.

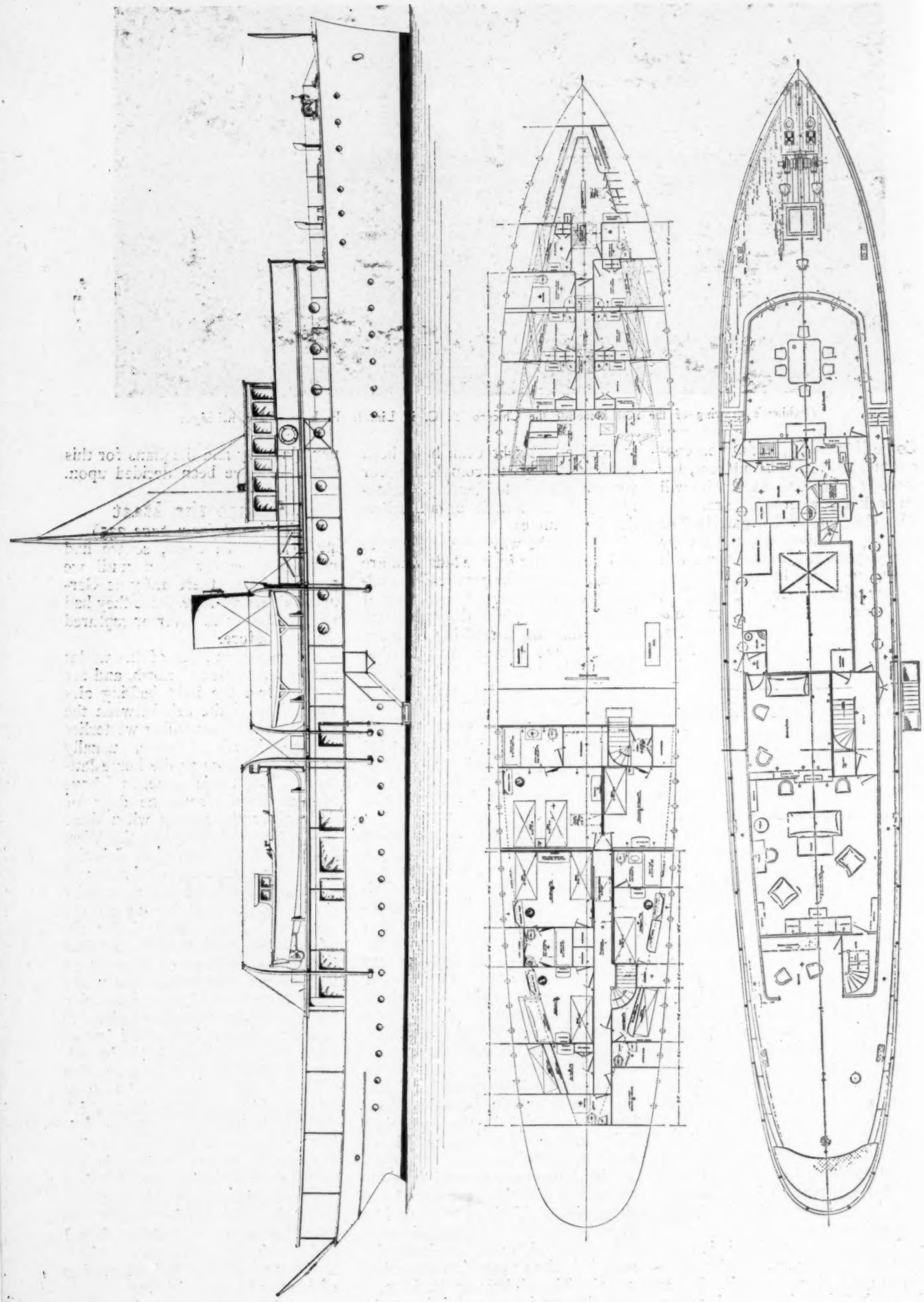
Before the Mast

(*Continued from page* 235)

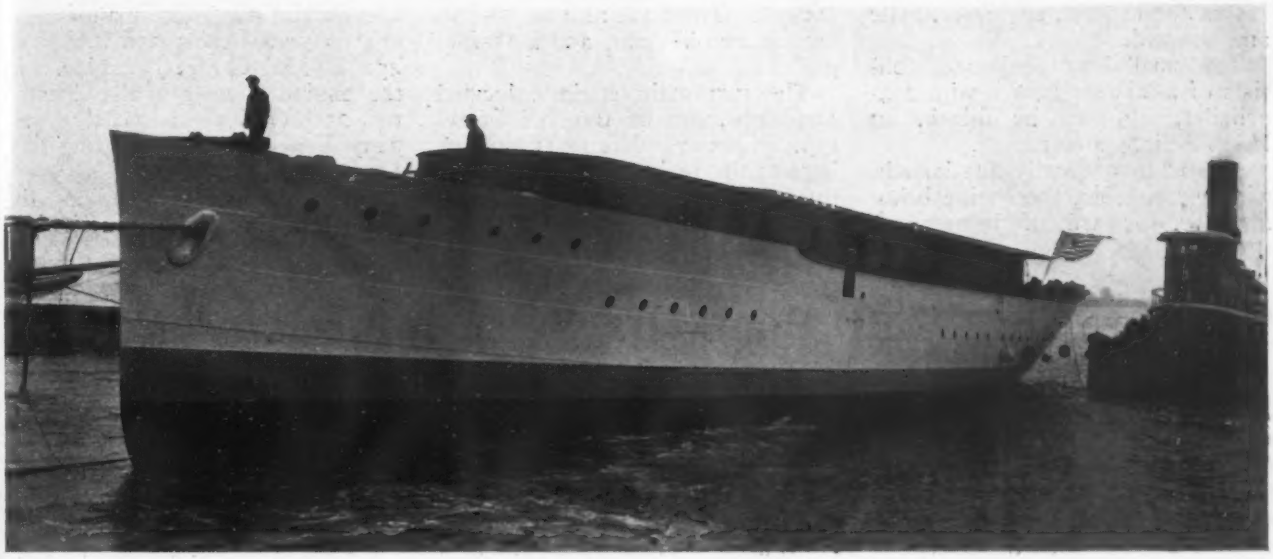
strike our own coast, so we had nothing to worry about until we got near home, there being no German raiders at large, since they had all been driven to cover or captured the year before.

We finally ran out of the trades in about latitude 21° north, and for a week had the light baffling airs and calms of the belt between the trades and the prevailing westerlies of the North Atlantic, usually known by sailors as the horse latitudes. It got this name, so I have always heard, from the days of the eighteenth century when there was a big trade between the West Indies and the American Colonies in sailing vesels, mostly brigs and schooners, each of which usually carried mules and horses on the outward voyage, destined for the West Indies. In this belt of calms the vessels would often be becalmed for days, or even weeks, and as the fresh water would sometimes give out, the horses were dumped overboard to drown instead of letting them die of thirst. It is in this belt of calms that the Sargasso Sea is found, the currents and lack of wind making an eddy into which great quantities of gulf weed collect. In some places these patches are heavy enough to impede the passage of a sailing vessel unless the breeze is strong. We saw considerable weed drifting on the surface, but no more, I think, than I had seen in the Gulf Stream, where at times some large beds or patches of it may be seen drifting.

(*To be continued*)



Outboard profile, main deck and accommodation plans of Diesel powered yacht *Nourmahal*, owned by Mr. Vincent Astor. Designed by Cox & Stevens



Launching of the *Nourmahal* at City Island

Nourmahal, a New Diesel Motor Yacht

THERE has been a great deal of interest shown in the new yacht recently launched at City Island, New York City, for Mr. Vincent Astor, one of the reasons being that she is the largest full-powered Diesel-engined yacht yet built in this country. Through the courtesy of her designers, Messrs. Cox & Stevens, we reproduce the plans herewith. In this yacht Mr. Astor has kept the name of a former yacht owned by his father for many years. The new vessel is built entirely of steel and was designed for offshore as well as coastwise cruising. Her principal dimensions are:

Length over all.... 160 ft. 8 in.
Length on L.W.L.. 151 ft.
Beam, molded ..... 25 ft.
Depth, molded .... 14 ft.
Draught ..... 10 ft.

Seaworthiness is the essential feature of the design. The lines are full and wholesome, and at the same time graceful and conducive to moderate speed. The stem rakes forward with an inverse curve, sharp cutwater and full round at forecastle deck. The stern is of modified steamship type, with rudder entirely below the water line. The bulwark rises in an easy curve abreast the pilot house to meet the raised forecastle deck at forward end of deckhouse.

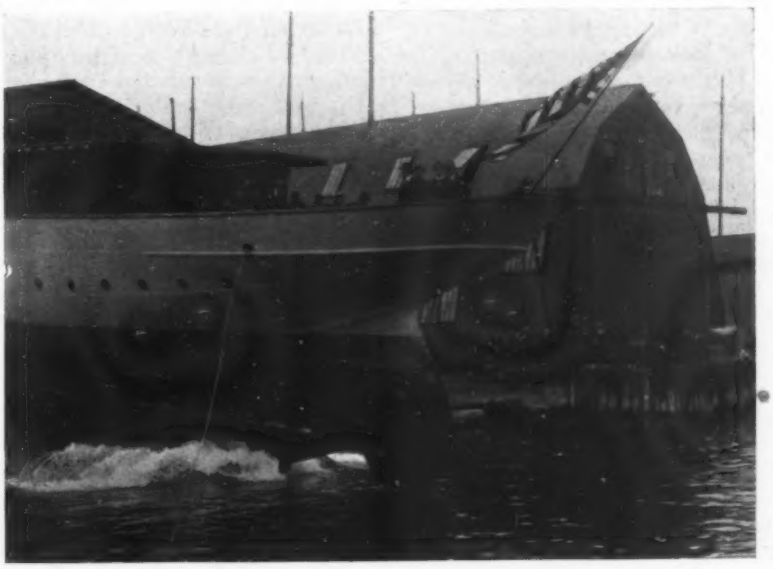
The scantling is somewhat heavier than is customary for a yacht of these dimensions, and there are seven full water and oil-tight bulkheads.

The accommodations in the deckhouse consist of a large dining saloon at the forward end, with galley and pantry directly behind. Abaft the engine enclosure is a smoking room 14 feet long by 12 feet wide, with an entry from main deck on the port side, with stairs to owner's rooms on the starboard side. Next comes the large and commodious living room, 22 feet long and 18 feet wide. Both living and smoking rooms are provided with open fireplaces and lighted by large square windows. Between these after rooms and the dining room is a passage on the starboard side, which also communicates with stairs to the pilot house. The extreme after end of the house is arranged as a veranda, enclosed except at the after end, reached from the living room through a vestibule on the starboard side, which also gives access to the guests' rooms below deck. The after deck, provided with the usual transom and awning, gives clear deck space of over 22 feet. Pilot house and radio room are located on the boat deck, forward of which is a large fair-weather seating space.

The quarters on the berth deck aft consist of two large staterooms for the owner, with two wardrobes and a bathroom. On the port side are one double and one single stateroom with bath between, and one smaller stateroom. On the starboard side is a large single stateroom and bath, maid's room, toilet and linen locker, while a toilet and shower room is located at the extreme after end of the passage.

The living room and smoking room are finished in walnut, the dining room in white and all the staterooms in white.

The entire berth deck forward of the engine room is utilized for crew space, with officers' mess room and



Nourmahal sliding off the ways, showing graceful lines of stern

Outboard profile, main deck and accommodation plans of Diesel powered yacht *Nourmahal*, owned by Mr. Vincent Astor. Designed by Cox & Stevens

rooms for captain, engineers, mate and steward.

The small boat equipment consists of a 26-foot launch with a 4-cylinder, 4½-inch by 6-inch, 40 H. P. Scripps motor.

This is an unusually fine launch, with sedan cabin, the engine being installed forward of helmsman's cockpit. There are also an 18-foot launch, two lifeboats and a 15-foot gig.

The two main engines, located amidships, are of the full Diesel type, of six cylinders 12 15/16-inch bore and 18-inch stroke, direct drive, with horseshoe thrust, made by the Winton Engine Works, Cleveland, Ohio. The manufacturer's test cards show 350 B.H.P. at 250 R.P.M. for each engine. In the engine room are also located two 25 KW General Electric Company Type GM-12 generating sets, 110 volts.

In hull fittings and engines, the yacht is a fine piece of designing.

Cordage for Your Boat—Its Selection, Care and Use

EVERY boat, no matter of what type, uses rope and carries a certain amount of it as part of her regular equipment. The only exceptions to this bald statement are racing hydroplanes, or speed boats, and even these have to be tied up at a dock once in a while and need a fathom or two of line for this purpose. Some boats require more rope than others, depending on the type, but no matter what the type, at some time or other the safety of that particular boat is entirely dependent on her cordage.

Yet in spite of this, owners of yachts often display a wonderful indifference to their gear, and you will often find the finest yacht with a collection of rotten lines and rope aboard that would shame a Newcastle collier. Power boat owners are, perhaps, worse offenders in this respect than sailboat owners. They have more excuse, however, in that they are not supposed to know the value of good rope as much as the man whose power is dependent on his halyards and sheets—and, Heaven knows, the sailboat man is often a bad offender in this matter, for every breezy day in yachting localities will see peak or throat halyards let go and the gaff and sail sag down just because the rope was old or rotten.

Some of this comes from parsimoniousness, for many a man who won't hesitate to spend one hundred or more "bucks" to buy a "case" to beat the 18th Amendment, will try to make the season before last's running rigging do for his yacht. But most of it comes from ignorance and a lack of understanding of the value of an adequate equipment, or knowledge of what is suitable rope and how to take care of it when bought. It is for that man that this short article is written.

What I am telling is not new. It is common knowledge to those who have followed the sea under sail. It may be found in pamphlets and books published by the various rope companies, and had for the asking. One cannot, however, tell all there is to know about the selection and care of cordage in a short article, but can only touch on the more important points.

In the first place, one wants to keep constantly before him the vital importance of strength in a rope. Now, all rope deteriorates with age, and especially if it is exposed to constantly changing weather, or is stored in close, damp places, such as is apt to be the case on board boats. So just because a rope was new last season does not mean necessarily that it will be all right this year. Ordinarily, rope that is not subject to great strain or wear will go through at least two seasons, if properly cared for, but there is always the chance it has not had that care. So, before going into commission, go over all your cordage and rope carefully to find out its condition.

The best way to see if it is in bad shape is to twist back the strands in the opposite direction of the lay and look at their undersides, or in the scores. If it is bright and still has some of its oil in the fibres, it is in good shape. If it is discolored and has lost its life, it is in bad shape, and very likely rotten. It may last a short time, but is not really worth reeving off for another season's use. If the rope is four-stranded, with a heart in the center, this may be uncovered and seen by this same testing process.

Also look for signs of stretching or undue wear or chafing in a rope. If a rope has pulled out thin in some parts, it should be examined closely for broken fibres or strands inside. If it is chafed or worn on the outside from rendering around bitts, cleats, or winches, it may be in bad shape inside from broken fibres, or its strength may be impaired by the wearing and breaking of the outside fibres. In any case, it is wise to replace it, or use it for some other purpose where it will not be subject to much strain. In the case of halyards, it will often be found that the part which is normally over the block when the sail is set is subject to more wear than other parts, and that they may be weak at these points when the balance of the rope is in fairly good shape. In this case it is not always necessary to buy new halyards, as they can frequently be turned end for end so that the fall, or slightly worn part, is aloft when the ends are changed. It is wise, however, not to skimp on your running rigging, but to get the best and not take any chances on old stuff "letting go" either during a race or when caught in a hard chance, when so much depends on everything holding.

An important thing to remember in the care of rope is that water and moisture rots rope fast, and for that reason the cable or shore lines that have become wet should never be stowed away below until they are thoroughly dry. Moisture makes dry rot, and even when stowed below rope should not be put in a damp, air-tight compartment, but should be stowed where there is a circulation of air, and if possible on a grating instead of on the floor board in the bottom of the boat.

Rain or wetting also makes rope shrink, and for that reason all parts that have a strain on them should be slacked off when it rains or when it gets wet with flying water. When leaving a boat after a week-end cruise, leave halyards, sheets, and all lines so slack that, if there is shrinking as a result of rain, they will not carry something away. Too many times this is neglected. Do not leave coils lying on deck where they will be in water if it rains, but trice them up to shrouds or booms.

When storing rope for the winter, after the laying-up season, care should also be taken to see that it is stored in a dry and well ventilated room. A building without heat and which is damp during the winter, or poorly ventilated, is a bad place to keep rope.

When the rope is used on a capstan or windlass, or if it is used frequently over bitts for towing purposes or for making fast to a dock, the principle of the "contrary turn"

(*Continued on page 256*)

Building a 24-Foot Auxiliary Cruiser

By S. S. RABL

PART II—CONSTRUCTION

IN the last issue we described the laying down of the lines as the first step toward the construction of our little cruiser, and in this one we will deal with the actual making of the parts and assembling them.

Assuming that the builder has laid down the lines, we are now ready to build the frames on the body plan. As the lines were laid down to the outside of the planking, our first step will be to take off this thickness (which is one and one-eighth inches) from our line before making a frame. This is done by nailing a strip 1⅛ inches square to the *inside* of the line. See Fig. 2, April issue.

There are several minor operations now necessary before the frame can be made. As the chine piece must fit snugly to the frames we will have to cut them at their intersection to insure this, so a line is run across the chine as shown in Fig. 3. While we are at it we can save much time and worry later by making a little pattern or template of light wood or heavy cardboard to fit the shape of the chine as I have shown. This same condition in a slightly different shape will occur at the keel, so a pattern is made at this point for the keel also. These patterns are carefully numbered for the frame that they are made for and laid away for reference in cutting the chine and keel, as will be described later.

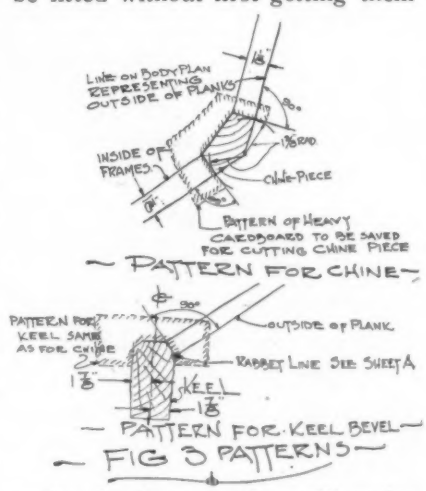
Let us now proceed with the building of the frames. In Fig. 4 we will see the frames fitted snugly against the square taking-off strips. About three inches is allowed above the raised sheer line for trimming off when the frames are erected. The knees and floor are next fitted on the frame and fastened with galvanized wood screws. To hold the frames when they are erected, a temporary cross piece is nailed about four inches below the normal sheer line so that the clamps may be fitted without first getting them under the braces. You will notice from the inboard profile that the frames on the stem knee have either no floors or one of a peculiar shape. By referring to Fig. 5, one may see how these frames are constructed. These frames are not made on the body plan but are fitted directly to the boat. Nevertheless, templates will have to be made for the chine piece at these frames from the lines laid down on the body plan.

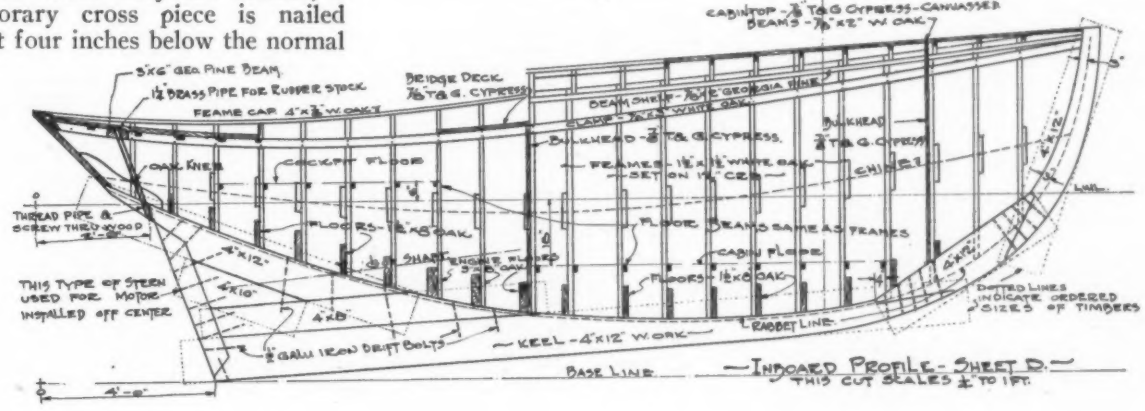
The next operation will be to build the transom. By referring to sheet A in the April issue, the transom will be seen projected in its true shape. This is done by laying down the rake and projection lines at the intersection of chine and normal sheer, square to it. On these projections the true widths as shown in the plan on the same sheet are laid off and the various points connected up. Fig. 6 shows the va-

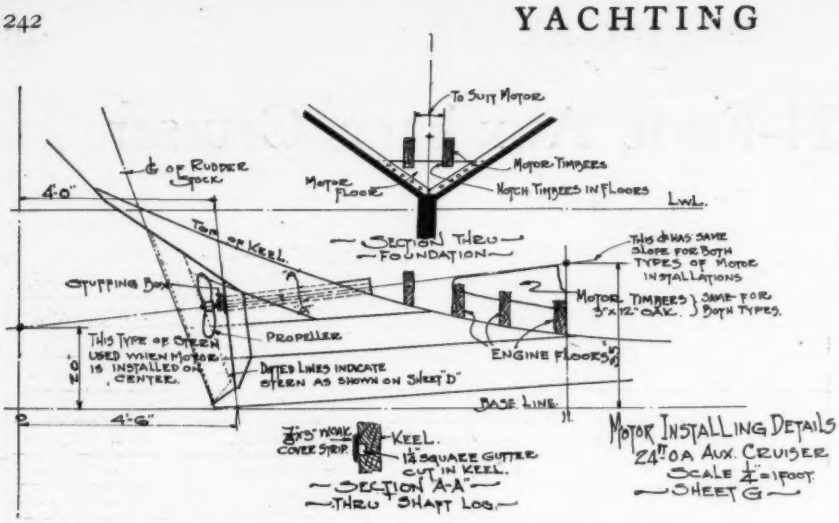
—BILL OF MATERIAL—
—24 FT O.A AUXILIARY CRUISER.— S.S.RABL. NA.

NO REQ	SIZE	LENGTH.	MATERIAL	USED FOR.	REMARKS.
1	4"x18"	18'-0"	WHITE OAK	KEEL	DRESSED 2SIDES
1	4"x12"	14'-0"	" "	HORN TIMBER & STEM.	" 2 "
1	4"x12"	12'-0"	" "	DEADWOOD & STEM KNEE	" 2 "
1	4"x8"	8'-0"	" "	DEADWOOD	" 4 "
3	2"x8"	16'-0"	" "	FLOORS	" 4 "
1	3"x8"	16'-0"	" "	MOTOR FLOORS.	" 4"
6	1½"x6"	16'-0"	" "	FRAME KNEES	" 4"
LIN FT 620	1½"x1½"	10 & 12 FT LENGTHS	" "	FLOOR BEAMS FRAMES	" 4"
6	⅞"x3"	16'-0"	" "	CLAMPS	" 4 "
6	2"x3"	16'-0"	" "	CHINE	" 4 "
LIN FT 180	⅞"x2"	10 FT LENGTHS	" "	DK. BEAMS	" 4 "
1	2"x12"	18'-0"	GEO. PINE	TRANSOM	" 4 "
1	2"x3"	16'-0"	" "	" FRAMES	" 4 "
1	4"x6"	10'-0"	" "	STERN POST	" 4 "
LIN FT 1000	1⅛"x6"	16 FT LENGTHS	" "	PLANKING	" 2 "
SQ. FT 300	⅞"x2½" FACE	T&G	CYPRESS	BULKHEADS & DECKS	" 4 "
SQ FT 100	⅞"x2½" "	T&G.	GEO PINE	FLOOR	" 4"
2	⅞"x8"	18'-0"	W. OAK	FRAME CAP.	" 2 " CUT TO CURVE
2	¾"	16'-0"	" "	TRIM	

—ABOVE MATERIAL FOR HULL ONLY.—


LINE ON BODY PLAN REPRESENTING OUTSIDE OF PLANKS
INSIDE OF FRAMES
CHINE PIECE
PATTERN OF HEAVY CARDBOARD TO BE SAVED FOR CUTTING CHINE PIECE
— PATTERN FOR CHINE —
PATTERN FOR KEEL SAME AS FOR CHINE
OUTSIDE OF PLANK
RABBET LINE SEE SHEET A
KEEL
— PATTERN FOR KEEL BEVEL —
— FIG 3 PATTERNS —


CABIN TOP - ⅞" T&G CYPRESS - CANVASSED
BEAMS - ⅞"x2" W. OAK
3"x6" GEO PINE BEAM
½" BRASS PIPE FOR RUBBER STOCK
BRIDGE DECK ⅞" T&G CYPRESS
FRAME CAP 4"x2" W. OAK
BEAM SHELF - ⅞" GEORGIA PINE
CLAMP - 2"x3" WHITE OAK
BULKHEAD - ⅞" T&G CYPRESS
BULKHEAD ⅞" T&G CYPRESS
FRAMES - 1½"x1½" WHITE OAK SET ON 12" CTRS
CHINE
OAK KNEE
COCKPIT FLOOR
THREAD PIPE & SCREW THRU WOOD
FLOORS - 1½" x6" OAK
FLOOR BEAMS SAME AS FRAMES
CABIN FLOOR
SHAFT
ENGINE PLACED 3" OFF CENTER
FLOORS - 1½"x6" OAK
THIS TYPE OF STERN USED FOR MOTOR INSTALLED OFF CENTER
4"x12"
4"x10"
4"x8"
DOTTED LINES INDICATE ORDERED SIZES OF TIMBERS
⅝" GALV IRON DRIFT BOLTS
KEEL - 4"x12" W. OAK
RABBET LINE
BASE LINE
4'-0"
— INBOARD PROFILE - SHEET D. —
THIS CUT SCALES ½ TO 1 FT.


To Suit Motor
Motor Timbers
Notch Timbers in Floors
Motor Floor
L.W.L.
4'0"
℄ of Rudder Stock
Top of Keel
Section Thru Foundation
This draws same slope for both types of motor installations
Stuffing Box
Motor Timbers 5"x12" Oak. } Same for both types.
Propeller
This type of stern used when motor is installed on ℄
Dotted lines indicate stern as shown on Sheet "D"
Engine Floors
Base Line
4'-6"
Keel.
1¼ Square Gutter cut in Keel.
Section "A-A" Thru "Shaft Log"
Motor Installing Details 24" O.A. Aux. Cruiser Scale ½=1 Foot Sheet G

rious sizes of lumber that go to make up the finished transom and the details of its construction.

Last, but not least, in the construction of the frame is the construction of the backbone, composed of the keel, stem and its knee, sternpost and the deadwood. It will be well at this point to describe briefly the two types of motor installations so that the reader may choose the one to his liking.

One method of installing the motor is to set the propeller off center so that it will swing entirely free of the deadwood. The advantages of this type are that greater efficiency is gained from the motor, due to the wheel working in free water, and a somewhat simpler method of lining up is secured by using a self-aligning shaft strut bolted to the deadwood and a metal shaft log on the outside of the hull, which permits the shaft to enter at any angle. In this type no shaft log will have to be bored and it is the one that I would recommend for the amateur. It has a slight disadvantage, however, of making the boat tend to turn away from the side on which the propeller is installed, which has to be corrected by the helm.

The other method is the conventional type, with the exception that instead of using a shaft log, a square groove or gutter is cut across one side of the deadwood and covered with a strip. The only boring necessary in this type is through the sternpost where the stuffing box is attached, a place that it would be impossible to make tight were it a square hole. See sheet G.

We will assume that the reader has selected the type of installation that is to his liking and is ready to go to work on the keel. On a large sheet of manila drawing paper the true shape of all the parts that go to make the backbone is laid out full size from measurements taken from the floor. Rabbet and frame lines are also marked on for reference in cutting the rabbets and setting the frames. These patterns are then

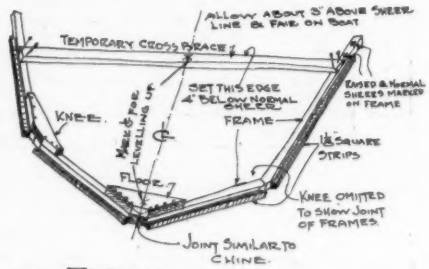
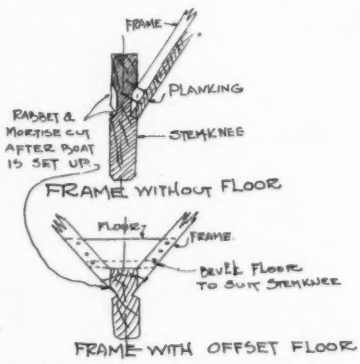

Allow about 3" above sheer line & fair on boat
Temporary cross brace
Set this edge 4" below normal sheer
Raised & normal sheers marked on frame
Knee
Frame
Floor
1½ Square strips
Knee omitted to show joint of frames
Joint similar to chine.

FIGURE 4
Showing how frames are built



Forward Frame Details
FIGURE 5

laid on the wood, and transferred to it by a tracing wheel or punch marks.

The pieces are then cut out with an adze or taken to a mill and shaped on a band saw, allowing one inch above the rabbet for trimming. After all the pieces are shaped they are fastened together with one-half inch drift bolts, which are simply one-half inch galvanized rods cut to length and riveted over a washer after being driven through a hole one-sixteenth of an inch smaller in diameter than the bolt. By referring to sheet D these are clearly shown.

The templates for the keel rabbet, which were described in Fig. 3, are now gotten out and the top of the keel is trimmed down to suit them. You will notice that the width of the keel given on the profile is four inches and that in Figs. 2 and 3 is 3¾ inches. The latter is the dimension that the dressed lumber will come when ordered. After the top of the keel is dressed to shape a sheet of lead about one-eighth of an inch thick and three inches wide is let into the top of the keel and edges of the rabbet to form a stop water at every place that a joint shows. This strip is laid on thin flannel soaked in white lead.

After the backbone is complete, it is set up and plumbed. Blocks are placed on the ground or floor to give the keel the right rake and it is ready to erect the frames on.

The frames are set up and plumbed fore and aft and athwartships and held in this position by temporary braces or shores. Be careful that on all frames forward of number 12 the floors and knees are on the forward side, and aft of that station on the after side. This is to insure sufficient material to take the bevel.

After all the frames are set up, temporary rib bands are run around them to insure their staying fair, and the clamp is bent in, level with the normal sheer line.

The Bill of Material is included in this issue so that all lumber may

(*Continued on page 256*)

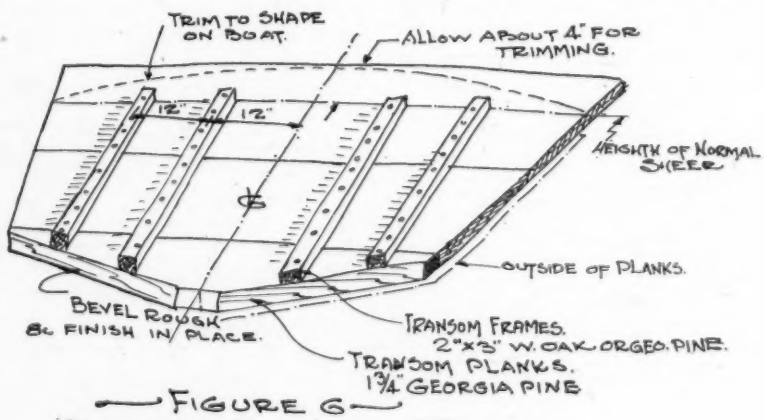
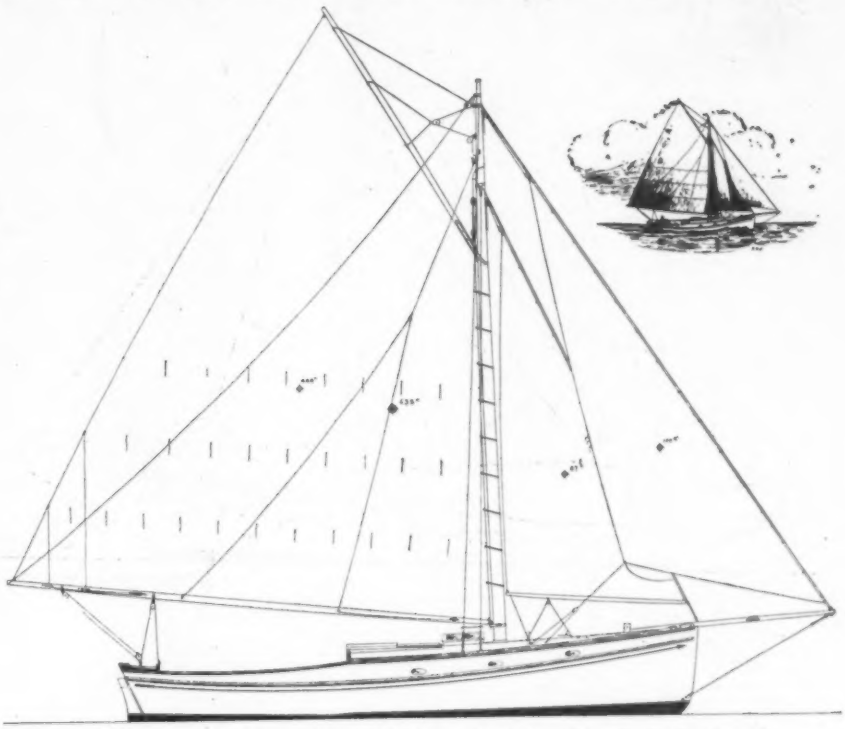

Trim to shape on boat.
Allow about 4" for trimming.
12"
12"
Height of Normal Sheer
Outside of Planks.
Bevel rough & finish in place.
Transom Frames. 2"x3" W. Oak or Geo. Pine.
Transom Planks. 1¾" Georgia Pine

FIGURE 6
Showing Details of Transom

A 30-Foot Raised Deck Auxiliary Cruiser

ONE of the most wholesome and able auxiliary cruisers that we have seen for some time is a 30-footer, designed by S. S. Croker, Jr., of Manchester, Mass., the plans of which we publish here. The boat is so unusual and original in many ways that her plans and layout will bear very careful study.

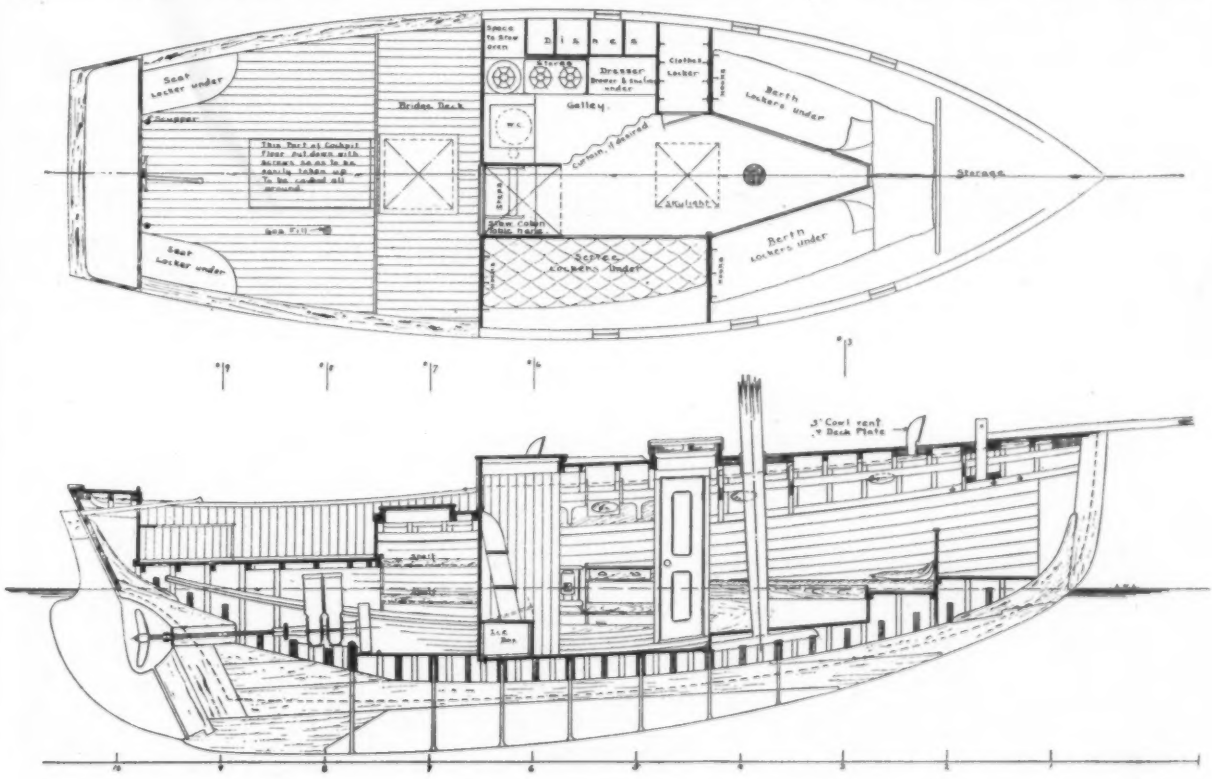
The raised deck for a sailing yacht has not found very much favor with yachtsmen; just why, we do not know, as it has many points to recommend it, but we would say that it is largely a matter of looks and of prejudice. In this boat the designer has gotten a raised deck with all of its good points without spoiling the looks of the boat in any way. She was designed by Mr. Crocker for his own use, with his own requirements in view, and was given short ends, with a rudder hung outboard, in order to keep down the cost of building, as builders' estimates are always figured on *over all* length, and to keep down the over all length and get as big a boat as possible on the dimensions, is an economy.

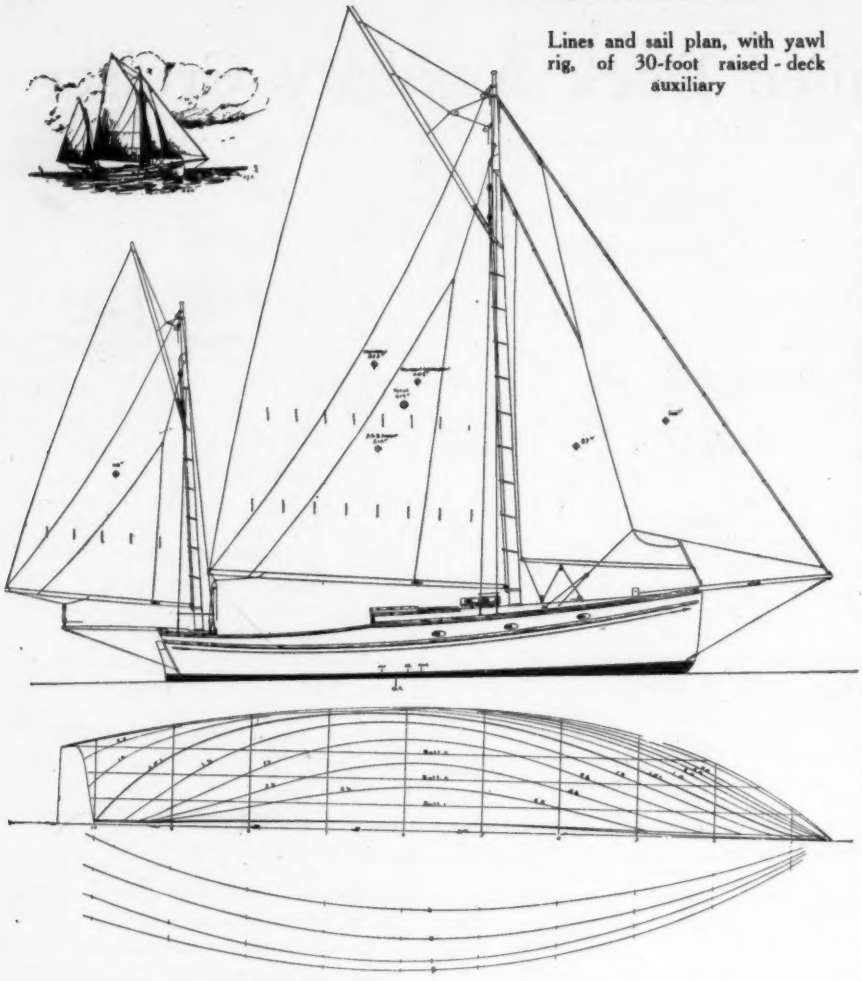


A 30-foot raised-deck auxiliary with sloop rig, designed by S. S. Crocker, Jr.

The designer's requirements were for a boat that would not be too large for one man to handle comfortably under all conditions, which, of course, includes handling ground tackle, which is usually the limiting factor for a boat for use as a single-hander. The dimensions are: length over all, 30 feet; water line, 27 feet 6 inches; beam, 9 feet 6 inches; draught, 4 feet 9 inches. The lines show a full-bodied boat of heavy displacement, yet with easy fore and aft lines and good sheer, and while it will take a large mainsail to drive her, she should prove fast, especially in a breeze, while in very light weather a two-cylinder four-cycle engine located under the cockpit deck will drive her at five or six miles an hour.

Two rigs are shown, one a sloop with a large mainsail, the other sail plan being that of a yawl. In the latter rig the main mast and head sails are unchanged from the sloop, a jigger being merely stepped aft. By having an extra jigger mast and two mainsails the boat can thus





Lines and sail plan, with yawl rig, of 30-foot raised-deck auxiliary

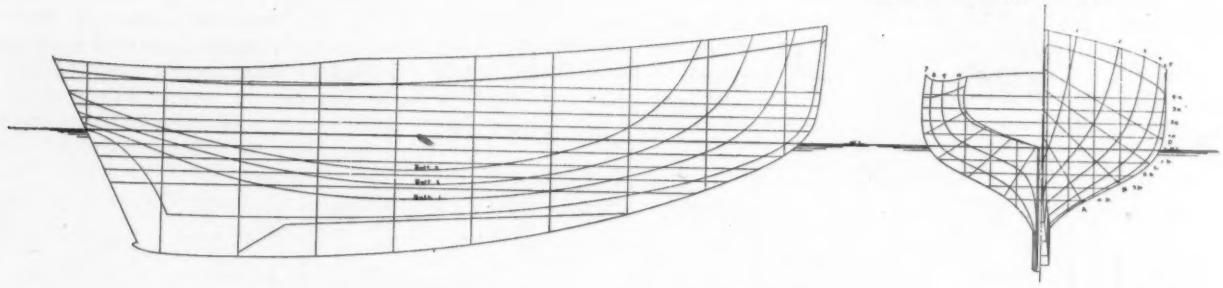
be changed from one rig to another in a short time, so that the advantages of a yawl rig for cruising can be obtained if desired. The boat has been given two headsails so as to have the fore stay come down to the stem head, as this not only stays the mast properly, should the bowsprit ever be carried away, but also gives a handy hold while getting the anchor, and saves shifting or reefing jibs, as is necessary with a single headsail. The yawl rig balances under mainsail and staysail alone, so that by furling the jigger and jib the boat can be sailed under a handy knockabout rig.

Accommodations required below were for three persons, with the possibilty of more on occasions, with a good sized galley, clothes locker, and toilet room. The plans show how well this has been worked out.

For fishing purposes a fish barrel can be placed under the bridge deck hatch, where the fish caught will be below, out of the sun, and will leave the cockpit free and clean at all times.

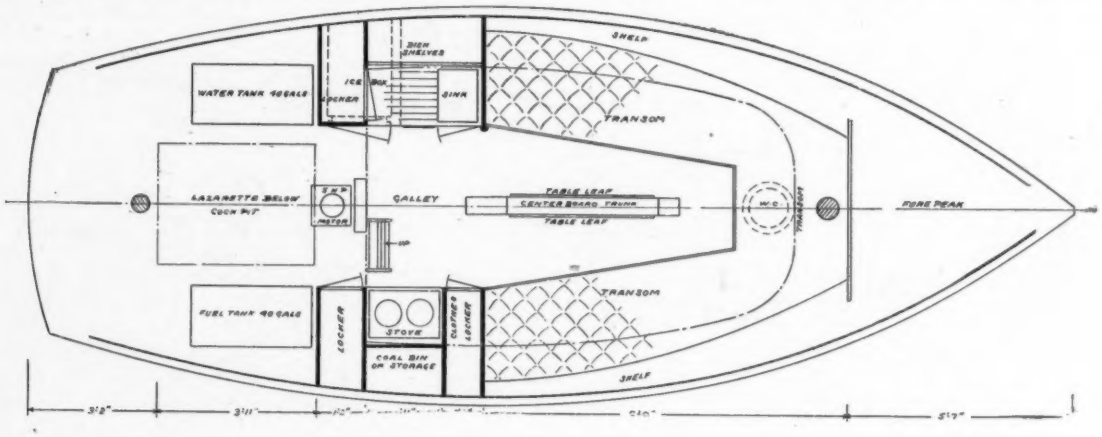
The engine can be reached from this hatch, though an ideal arrangement would be to have a self starter on the engine with deck controls.

We believe that this type will make a distinct appeal to those who want a thoroughly able, seaworthy and comfortable boat.



A Husky 20-Foot Waterline Auxiliary Yawl

A SMALL auxiliary cruising yawl with a lot of room in her is shown in the accompanying plans. In designing this little cruiser Ralph E. Winslow, of Atlantic, Mass., has turned out a small boat that can be sailed single handed and be built at a reasonable cost. At the same time sufficient cabin accommodations are provided so that a man and his wife and one child can cruise or live aboard for the



Sail plan of 20-foot waterline cruising yawl, designed by Ralph E. Winslow

entire season if they wished to. These were the conditions imposed by the prospective owner.

A moderate draught boat was desired, partly on account of her ability to enter shoal harbors and lie on the flats at low tide, and partly on account of the increased room that the centerboard type, with its wide beam, gives in accommodation, and the small angle of heel at which she sails.

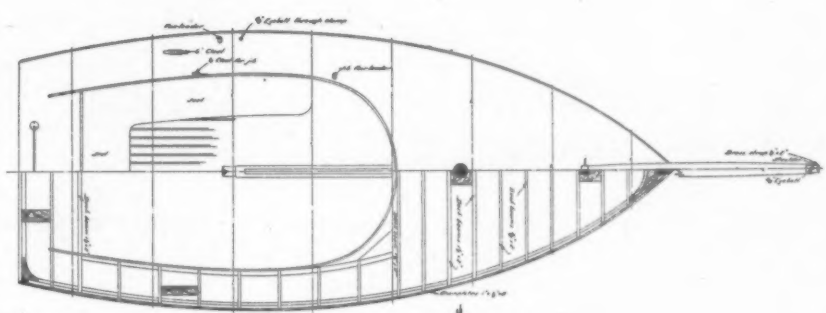
The principal dimensions are. length overall, 25 feet 11 inches; L. W. L., 20 feet; beam, 9 feet; draught, 3 feet; sail area, 488 square feet. The cabin has 5 feet headroom in the clear and more under the slide and hatch.

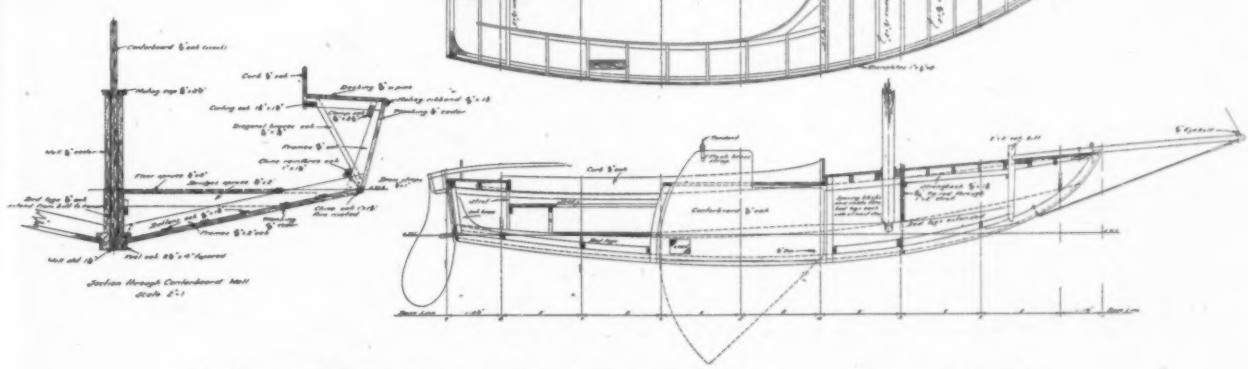
She has been kept just under 26 ft. overall, so as to come in class I, of the motor boat rules when being used as an auxiliary or a power boat.

A 16-Foot V-Bottom Sailboat

THE plans we show here are of a V-bottom sailboat designed by Wm. H. Hand, Jr., of New Bedford, Mass., for Mr. Eugene Laverne of Paris. A one-design class from these plans is now building in France for use on the Seine, and many boats are being constructed for it.

These boats should prove excellent little craft for general sailing as well as class racing in the waters where they will be used, as they are fast, seaworthy, and inexpensive. Several similar one-design classes are now being produced in

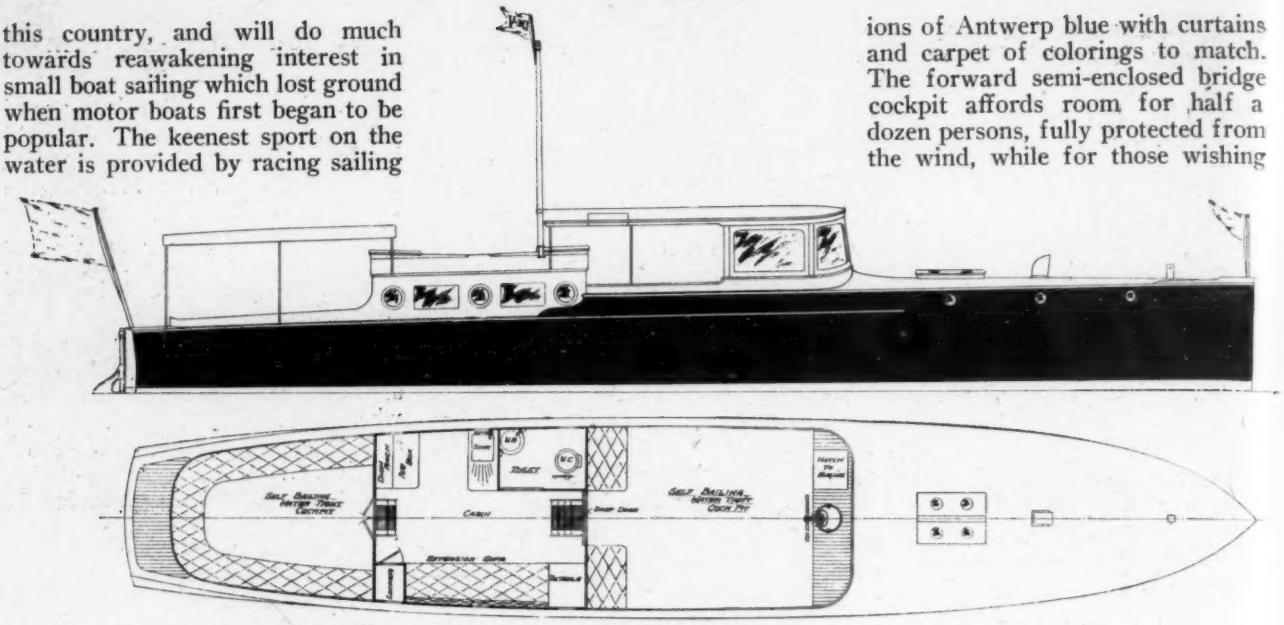




A 16-foot V-bottom sailboat designed by William H. Hand, Jr., for use on the River Seine

this country, and will do much towards reawakening interest in small boat sailing which lost ground when motor boats first began to be popular. The keenest sport on the water is provided by racing sailing craft, and as a rule one-design classes furnish the best sport of all.

The plans show that this boat of Mr. Hand's is a V-bottom center board type, with a forward overhang, good beam and plenty of stability. The dimensions are: Length, 16 feet 3 inches; beam, 6 feet 11 inches; draft, 9 inches, sail area 218 sq. feet.



A fast 50-foot day cruiser, owned by Norman de Vaux, of Oakland, Cal. Designed and built by Luders Marine Construction Company

Myrno III, An Eastern Boat for a Western Yachtsman

AFTER a long and dusty trip of 3,000 miles by rail across the continent from the Luders Marine Construction Co., Stamford, Conn., where she was built, the handsome day cruiser *Myrno III*, now graces the waters of the famed Lake Tahoe, 6,000 feet above sea level in the mountains of California. Mr. Norman deVaux, of Oakland, California, an enthusiastic yachtsman of the Pacific Coast, recently added this boat to his fleet of yachts and will use her on Lake Tahoe, where his summer home is located.

Myrno III is a 50-footer with 9 feet beam and 2 feet 3 inches draught and she has many interesting and original features in her design. The plans show fully the appearance and arrangement of the boat, as no photographs of her are yet available. Arranged by the designers, who were also the builders, to suit the owner's particular requirements, she is complete in every detail.

The cabin of solid mahogany is upholstered with thick velour cushions of Antwerp blue with curtains and carpet of colorings to match. The forward semi-enclosed bridge cockpit affords room for half a dozen persons, fully protected from the wind, while for those wishing to be out in the sunlight the after cockpit with its comfortable cushions of pigskin is available.

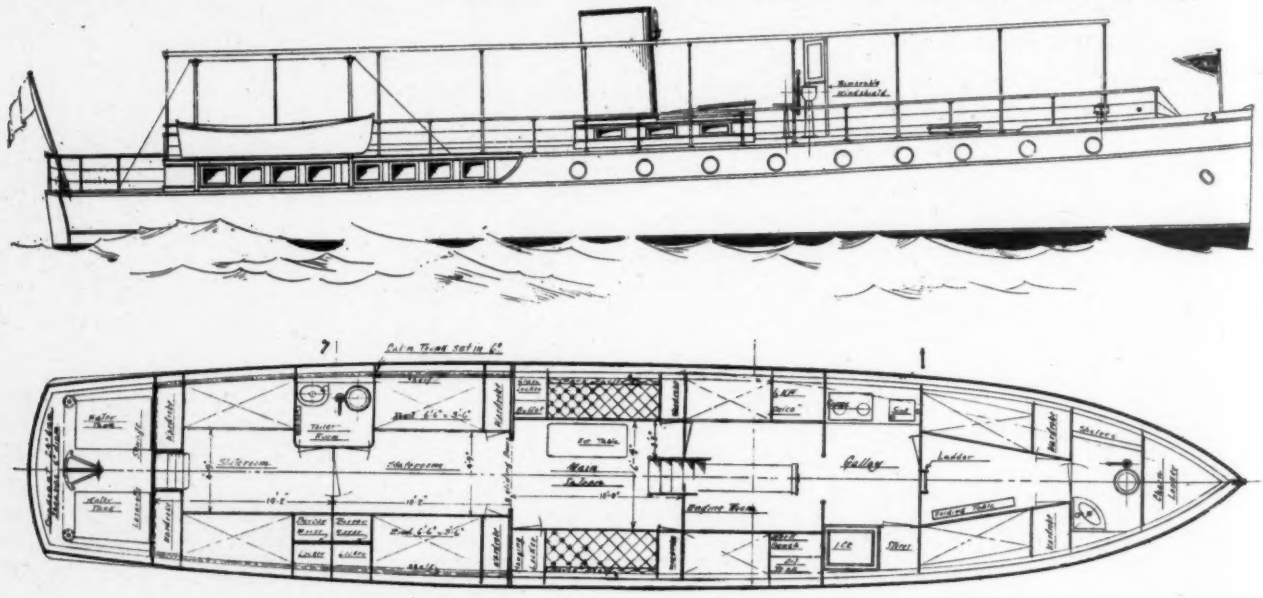
Forward of this bridge shelter is located the motor—a six-cylinder Hall-Scott marine engine of 200 H.P., installed in a most thorough manner, which gives the boat a speed of better than 21 miles an hour. Due both to the smooth running of the engine and the rigid construction of the hull all vibration is eliminated.

A 70-Foot Power Cruiser

The plans which are shown herewith are of a 70-foot cruiser, which has been designed recently by J. Murray Watts, for C. A. Sporl of New Orleans.

This boat is 70 feet long, over all,

(*Continued on page 263*)



A 70-foot cruiser designed by J. Murray Watts for C. A. Sporl, of New Orleans

What the Model Yachtsmen Are Doing

Midget, An Alpha Class Racing Model

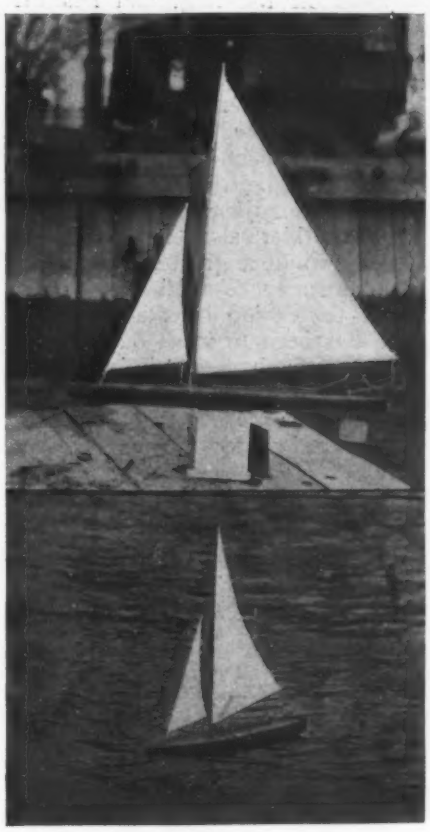
Owing to the increased popularity of the sport of model yacht racing, this magazine will publish a series of designs of racing model yachts from the board of Mr. John O. Berg, M.E., Commodore of the Central Park Model Yacht Club since its inception, and a student in the art for 25 years.

All of these boats have been raced consistently through one season or more and accurate and complete data under all conditions of sailing are available from the files of the club. As the records will show, several are cup winners, while all stand high in consistent performance, and in individual heats hold the record for the year by covering the course in the shortest time.

These designs have been chosen from the several classes—the Alpha, the 36-inch L. W. L., and Third-Class models. The latter being the popular class, three designs will be shown in this class.

The Alpha class is of comparatively recent origin. It is an ideal craft for the beginner with which to try out his capabilities. The lines of *Midget*, given herewith, show a model of moderate displacement and small sail area. She was designed mainly for use in larger lakes or open waters and could stand an increase in sailspread up to 850 square inches.

Her general dimensions are as follows, the sizes being given in inches and tenths: L. O. A., 36 inches; L. W. L., 28 inches; beam, 7.3 inches; displacement, 7.8 lbs.; sail area, 680 square inches.



Model yacht built to rule of Class "B," Inland Lakes scows

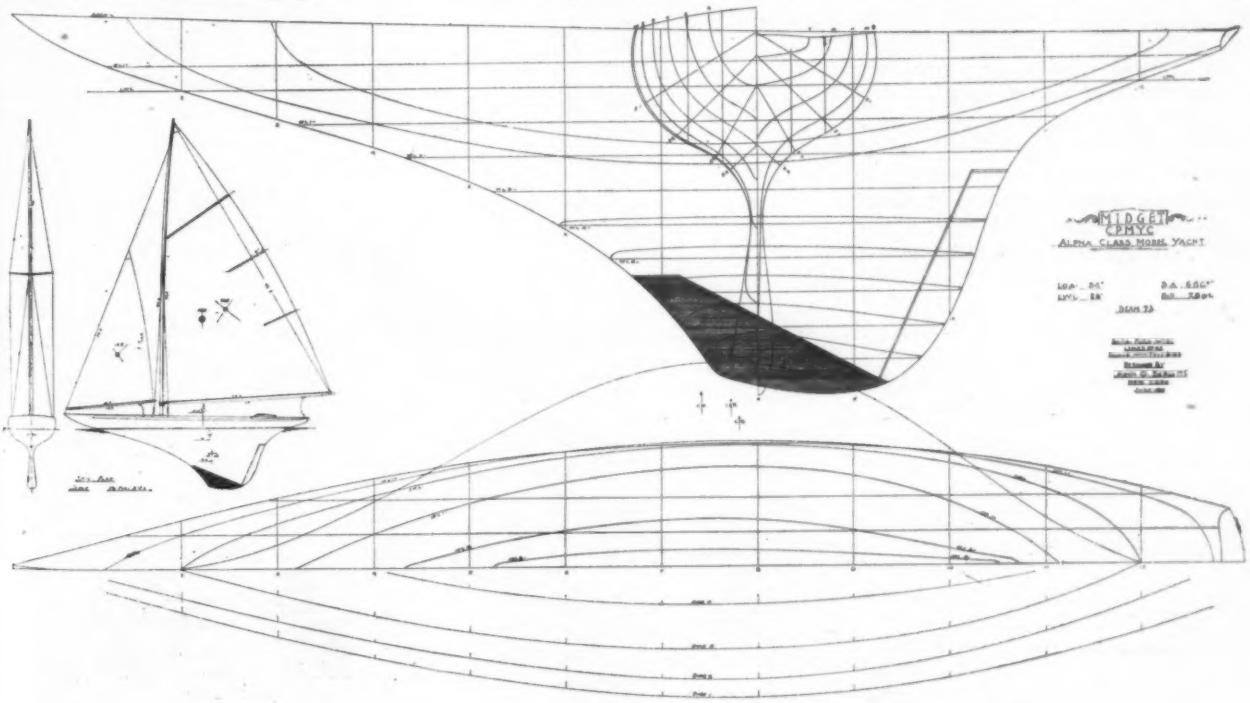
The hull of the Alpha should be made of dry white pine and dug out as much as possible to not over one-eighth of an inch thick except perhaps at the rail where the deck is to be secured. The deck should be made of the same material not over 3/32 inch thick. All spars are of spruce and should be hollow. All fittings are as small as can be made, either of nickel silver or aluminum.

The "Marconi" rig and the development of the leg-o'-mutton sail in connection with model yachts has been thoroughly tested by the C. P. M. Y. C. members. In fact this organization was the first to make extended competitive tests of this rig. It has been found superior to the gaff-headed mainsail for the purpose and is now generally used in the classes raced by this club.

Model of Inland Lakes Scow

In a recent issue of YACTHING I notice a request for particulars of model yachts of the "B" Class type, such as are sailed by the Inland Lakes Association, and the Royal St. Lawrence Yacht Club.

In order to make a study of certain points, models of the 32-foot O. A. "B" type were worked out to a scale of ¾ inch to 1 foot, producing models 24 inches long. Beinb models, the double rudders and bilge boards were not practical; therefore an aluminum fin and single rudder of balance type were used, with slightly longer rudder post than would be used in the full size boat. To reproduce as closely as possible the full size boat when



sailed with a complete crew, the width and depth of the fin represented the area of the bilge boards; the total weight of the crew and bilge boards being represented by a lead bulb moulded on the bottom of the fin. A slight allowance was made, as the bulk of the weight was at the extreme draft. Worked out on this principle, the model floated very close to the water line of the full size boat.

The sail plan, which is of Marconi type, is worked out to the same scale. Two of these models have just been tried out and the speed, balance and sailing qualities, both pointing and reaching, have proved most interesting and instructive.

H. J. McADIE.

Lines of Model Yacht Cup Winner Imp

The Model Yacht *Imp*, 1920 cup winner in the 36-inch class, Central Park Model Yacht Club, is shown in the accompanying photograph and drawings.

This boat, which is of rather unusual construction, is made of 1/16-inch mahogany veneer. Frames, ribs and keel are of white pine. She is of the V-bottom type, the body being made up of four strips, two sides and two bottom pieces. It was found by making the fin keel hollow that much more stability and buoyancy were obtained while the resistance was not materially increased.

For sail carrying ability it is claimed that this type of boat cannot be surpassed. There are 16 lbs. of lead on the fin and the boat has a 6 foot 6 inch mast, hollow, 7/8 inch diameter and a hollow boom 44 inches long by 5/8 inch diameter.

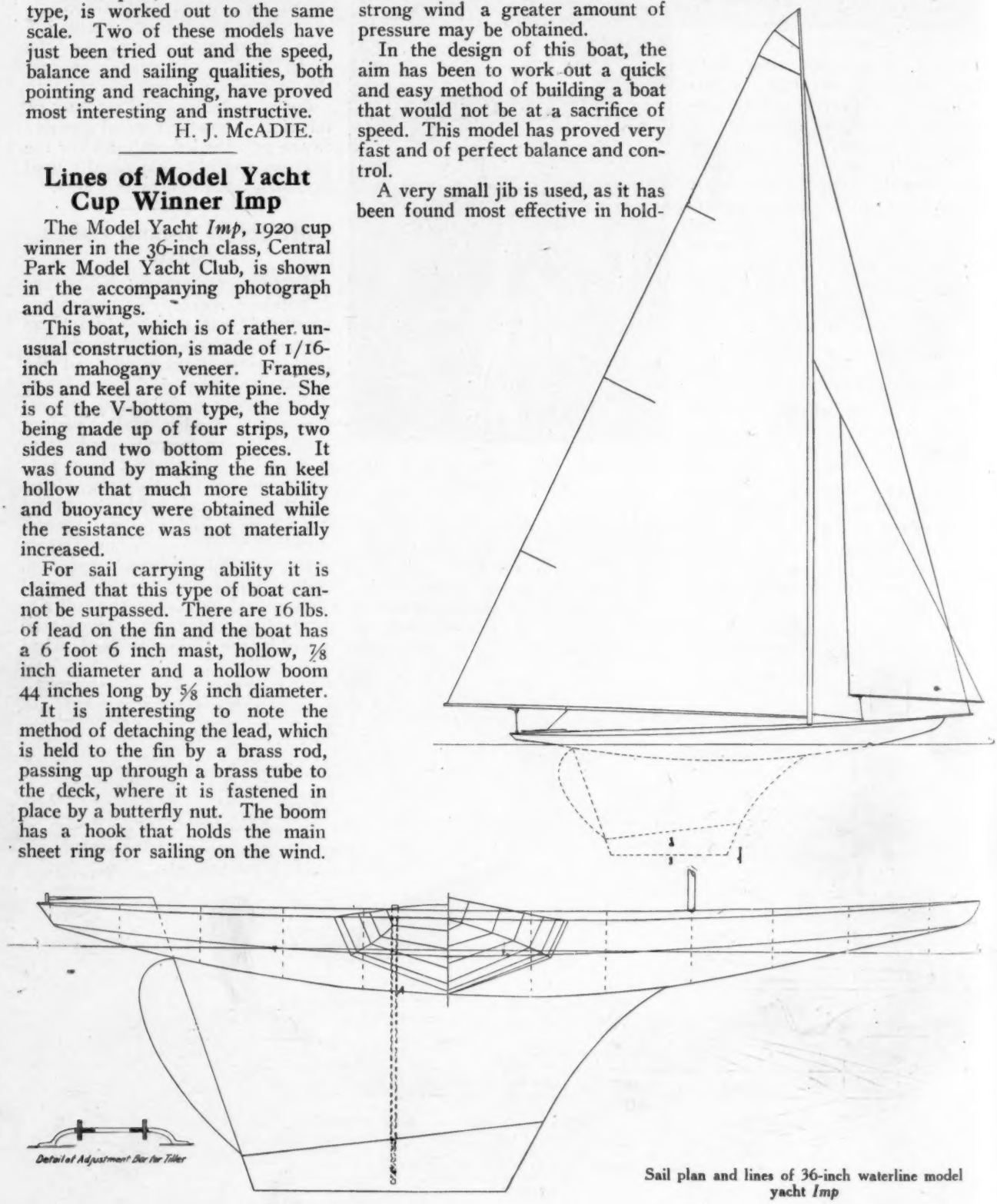
It is interesting to note the method of detaching the lead, which is held to the fin by a brass rod, passing up through a brass tube to the deck, where it is fastened in place by a butterfly nut. The boom has a hook that holds the main sheet ring for sailing on the wind. When it is desired to throw her off so that she might sail before the wind, a mere touch with a pole throws off the ring, and lets the running sheet take effect on the tiller.

A running and reaching sheet is attached to the tiller and a rubber band so adjusted that the pressure of the wind on the sail is just enough to give the proper rudder. There is an adjustment bar for control of tiller also, so that in a strong wind a greater amount of pressure may be obtained.

In the design of this boat, the aim has been to work out a quick and easy method of building a boat that would not be at a sacrifice of speed. This model has proved very fast and of perfect balance and control.

A very small jib is used, as it has been found most effective in holding the boat on its course in light airs with rather a taut sheet. Rigging is of fine wire, and small hooks with knotted sheets give ample adjustment for sails. A slight bow to the mast—aft—of about 1 inch has been found to give a better draft to the main sail.

The general dimensions are: Length over all 47 inches, length water line 36 inches, draft 12 inches, beam 11½ inches, sail area 2,035 square inches.



Sail plan and lines of 36-inch waterline model yacht *Imp*

Plans for the International Match

PLANS are taking shape for the International Model Yacht Race between W. J. Daniel, of England, and a boat to represent this country, the announcement of which was made in the last issue of YACHTING. The class we have selected is the 42-inch waterline class, or the Third Class American Rule, the specifications of which we published in the last issue of YACHTING.

No date has yet been selected, but it is probable that it will be late in the season, September or October.

In order to properly handle this matter, the editor of YACHTING has been asked to appoint a committee, of which he shall be one, to handle all the details and draw up conditions for the match. This is necessary, as there is no national racing association of model yachtsmen in this country, and until such an association is formed, this seems the only way to get a committee together.

Mr. Daniel has so altered his challenge as to meet any representative American model yacht, and this means that a series of trial races will be held to pick the defender. A committee, whose personnel will be announced in the next issue of YACHTING, will draw up all details of the contest, dates, conditions, etc., the latter following the prevailing American practice. All recognized model yacht clubs in the United States will be asked to enter a boat in these trial races, and as a result of these trial races, a defender will be chosen by the committee.

This will give every model yacht club in the country a chance to get into the race and make this a really international affair instead of merely a race between two individuals. The challenger has also announced that he will meet any combination of designer, builder and sailor. That is, one man can design the boat, another build her, and a third sail her if desired.

Yachting Offers a Cup

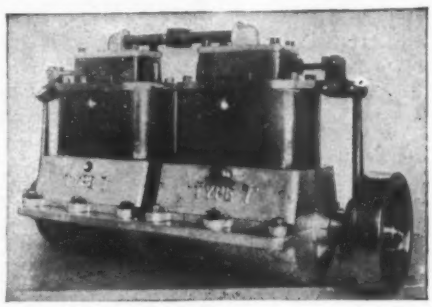
As announced in our last issue, YACHTING has offered a handsome sterling silver cup, 18 inches in height, for this event. The committee will decide under what terms this cup will be held.

Formal notice will be sent to all model yacht clubs in the near future, asking them to enter a boat.

A Four-Cylinder Engine

The engine illustrated here is one of the standard machines recently put on the American market. This is the largest and most powerful now available for model use, and has shown about ½ horsepower on brake test. To develop this power the little engine turns over 3,500 revolutions a minute, and will keep it up as long as it gets steam.

The term "large" is used comparatively, the engine weighing 53 ounces and being 8⅞ inches overall length. With a standard boiler and torch sufficient to run about twenty minutes it is interesting to note that the total weight works out at about 18 pounds per horsepower at the beginning of the run and about 14 pounds at the end. With special equipment this can be reduced to about 12 pounds per horsepower.



Four-cylinder single-acting engine of Westinghouse type, ⅞ inch bore by 53/64 inch stroke, which gives standard ½ cubic inch piston displacement to fit 15-pound displacement class

Building a 15-lb. Displacement Class Hull

PART II

THE transom piece which has been put on, as described in the last issue, requires a ⅛-inch square strip to run all around each edge. As this is fastened on with Ambroid and toothpicks, it will be necessary to cut into the stern of the mold to allow room for these backing pieces. When this transom is in place, and checks up properly at the chine lines and at the keel line, as well as at the sheer lines, it can be tacked into place temporarily. The bevel for the sides and for the bottom may then be cut on the transom and its backing pieces.

The next step will be to get out the other frames, all of which are built up of several pieces. To do this successfully it will probably be best to take each frame separately, cutting out some ⅛-inch stock of such width as will show ample strength after such cutting is done, as is necesary. This may seem like a complicated order, but I believe, if you will make a tracing of any one of the members, running from the keel to the chine, or from the chine to the sheer line, and then will calculate that about the same strength is necessary along the whole length, you will readily understand what I am driving at. As these pieces are roughed out they should be clamped into the section drawing, drilled and pegged up immediately, marked for their respective sides and number of frame (or mold), and left to dry. When all the frames have been made up in this way, they can be placed onto the molds temporarily, so that the keel may be fitted to them. The angle and size of the chine line may be laid out on them, together with the various clamps and stringers, which make up the inside frame. Then the beveling can be done for both the bottom and sides, after which the places where the battens come may be let in, so that batten and frame will present one flush surface for the planking to rest on.

This part of the work will take some time to do nicely, and right here is where most of the care and patience is required. As this work progresses it would be well to test the keel along its center line for straightness, and as you are fitting the frames it would be well to test the keel for height from the sheer line. (Remember that the boat is still upside down.)

When these frames are all fitted, some little floors, about ⅛-inch by 3/16-inch, can be cut, to run across the keel on the inside, also on the ⅛-inch edge, so that these pieces may be used to tie the two frames to the keel. This is probably shown to better advantage in the accompanying sketch.

When you are sure the Ambroid used to do this is set, these floor timbers may be cut off flush with the frame so as not to interfere with the planking, which will lay along that edge.

The chine line can best be made of a piece of 3/16-inch by ⅜-inch silver spruce, long enough to go in one piece from end to end. About one-third of the forward end of these two pieces may be tapered to about 1/16 inch at the extreme end. Letting these two ends into the stem piece at a joint, which will insure these chine logs coming at the proper place in the frames, will be the next work in hand, and the mortice, into which these chines set should be very carefully made, in an endeavor to obtain a slight driving fit. The chines and stem can then be drilled, and pegs driven right through, clipping the ends afterwards, and filing flush. The balance of the chine pieces can then

(*Continued on page 263*)

"RICHARDS' MADE"

Marine Models That Sail

Construction Sets—Finished Models.
Sails Made—Lead Cast—Fittings—

Special Hull Work

Made in a plant devoted entirely to the making of practical Sailing and Racing models—including fast power hulls.

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S. APPEL & CO.

Uniforms of Distinction for Yachtsmen, Naval Reserve and Coast Defense Reserve

Yacht crews uniformed at shortest notice, according to club regulations.

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Oiled Clothing for Men, Women and Children.

Send for our illustrated Catalogue

18 FULTON ST., NEW YORK

Of Interest to the Skipper

An Anchor That Won't Foul

In using the old style kedge anchor it frequently happened that the cable became foul of the stock or fluke in such manner as to break out the anchor. Likewise, in some of the various styles of stockless anchors on the market it would frequently happen that when the anchor had engaged in the bottom the shank would project in such a manner that when the boat swung with shifting wind or tide, the cable would become twisted around the shank in such a manner as to foul the anchor and to kink the cable badly, so that during a storm it frequently chafed through, allowing the boat to go adrift.

With these facts in mind the Thos. Laughlin Company, of Portland, Me., conceived the idea of making a stockless anchor with a round shank, this shank being attached to the head of the anchor by a ball and socket joint. The shank of this anchor being round and with ball and socket joint, the shank will roll or swivel, thus overcoming the tendency of the cable to become twisted round the shank or to become kinked.

Those who have used the anchor say that it is a great boon to yachtsmen or boat owners, as it is absolutely non-fouling.

New Frisbie Distributor

On and after April 15, the Frisbie Valve-in-Head Motors will have a new home in the New York territory. Commencing with that date the interest of the Frisbie Motor Company will be represented throughout the New York territory by the firm of Bruns, Kimball & Company, 153-159 West 15th Street, New York City. The territory controlled from that office will be the entire States of New York and Connecticut, and those counties of New Jersey adjoining the New York territory.

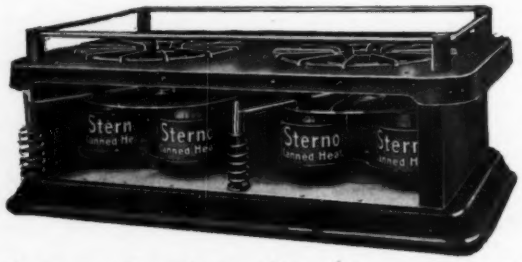
A good size stock of Frisbie motors will be kept on display in the salesrooms of this company, and more important still is the fact that this company will be in a position to give prompt service to all Frisbie owners on repair parts and repair work on their motors.

A New Cook Stove for a Small Yacht

Most yachtsmen who have cruised extensively and have done their own cooking have often had occasion to desire a stove that was simple in operation, clean, non-explosive, and that needed no care to keep it in order.

Many of the kerosene and other vapor stoves that work under pressure require more or less attention, due to the fact that they become clogged with carbon, that the washers of the pumps wear out, and the like, while the priming of these stoves when the boat is heeled or rolling in the seaway is difficult, as the priming fluid is apt to slop over.

A new stove that has recently come on the market was sent to us for testing last autumn, and on a cruise on Long Island Sound it proved very satisfactory. This stove was designed particularly for yacht use, and the fuel used is canned heat, usually known by the trade name as Sterno.



A new stove for yacht use which eliminates many of the trials of liquid fuel.

The stove carries three half-pound cans of Sterno under each burner, thus giving a flame that is distributed evenly over the entire bottom of the cooking utensils, instead of being concentrated in the centre, as is the case in a one-burner stove. An ingenious arrangement of draughts gives a fine head to the flame, while the amount of heat can be regulated by a lever working a damper on top of the flame. There is no priming of any kind, the fluid is solidified, so that if capsized it will not run all over the boat, and it is absolutely safe and troubleproof.

The Lebby Searchlight

The Southland Steamship Company of Savannah, Ga., contends that a searchlight is one of the best and cheapest forms of marine insurance, and is often as necessary to a boat as headlamps to an automobile, but that a poor one is rather worse than none at all. A good many experienced boatmen share this opinion, which is becoming more and more generally accepted.

The Lebby searchlight which this company manufacture is designed with a view to producing a powerful searchlight embodying all the good features of the big ship searchlights, but consuming so little current that it may be operated from the small capacity lighting plants in general use on motor craft. That this has been accomplished is evidenced by the fact that the little 7-inch Lebby consumes only 36 watts, yet develops a beam of 116,000 c.p., and picks up objects approximately half a mile away. The 14-inch searchlight, consuming but 1,160 watts, develops a beam of 530,000 c.p., with a range of one mile.

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Established 1790

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City Island, New York City

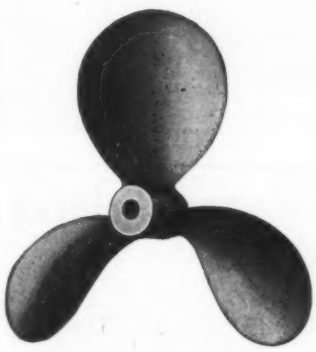
Linen Rope and Galvanized Plough Steel Wire for Running and Standing Rigging

Telephones:

City Island { 1013 / 1243

Hyde Turbine Type Propellers

are stocked in every locality. The following is a partial list of firms carrying Hyde wheels. Consult your nearest dealer for information and prompt, courteous service.



PORTLAND, MAINE
Chas. F. Guptill Co.
175 Commercial Street

NEW BEDFORD, MASS.
Hathaway Machinery Company
North Water and Elm Sts.

PHILADELPHIA, PA.
Elisha Webb & Son Company.
136 South Front Street

CRISFIELD, MARYLAND
Clarence Sterling & Son
1104 Main Street

SAVANNAH, GEORGIA
White Hardware Company.
25 Congress Street, West

NEW ORLEANS, LOUISIANA
Stauffer, Eshleman & Company
511 Canal Street

WILMINGTON, CALIFORNIA
Fellows & Stewart

PORTLAND, OREGON
Oregon Marine & Fisheries Supply Co.
105 First Street

DETROIT, MICHIGAN
Belle Isle Boat & Marine Co.
East Jefferson & Parkview

CHICAGO, ILLINOIS
W. L. Masters & Company
229 North State Street

BOSTON, MASS.
Rapp-Huckins Company
59 Haverhill Street

NEW YORK CITY
W. C Disbrow, Jr.
8 Reade Street

BALTIMORE, MARYLAND
Unger & Mahon, Inc.
Pratt & Gay Streets

NORFOLK, VIRGINIA
Gas Engine & Boat Corporation
First Street near Front

MOBILE, ALABAMA
Marine Supply Company

HOUSTON, TEXAS
C. L. Bering Company
1009 Capitol Avenue

SAN FRANCISCO, CAL.
Johnson, Joseph & G. M. Josselyn & Co.
56 Sacramento Street

SEATTLE, WASHINGTON
Pacific Net & Twine Company
1213 Western Avenue

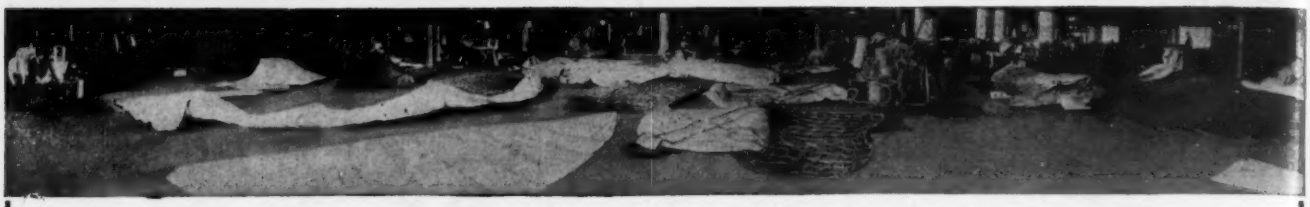
ALEXANDRIA BAY, N. Y.
Hutchinson Bros.

MILWAUKEE, WISCONSIN
Joys Bros. Company
201 East Water Street

Write for our booklet "Propeller Efficiency." It contains valuable information. A copy will be mailed on request.

HYDE WINDLASS COMPANY

Bath, Maine



For Your Yacht Sails

and canvas work, we offer expert workmanship and prompt service. Specialists also in awnings, bunting, flags, burgees, rope work, etc.

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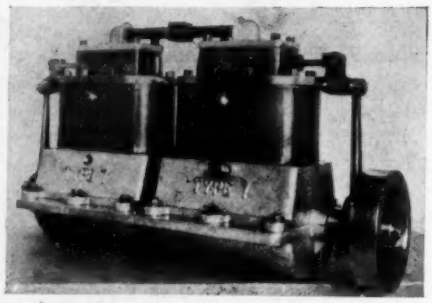
North River
New York City

Marine Canvas Supply Corp.
"The Largest Sail Loft"

236 Craig Street. W.
Montreal, Que.,
Canada



MINIATURE MARINE ENGINES

Run on 2 to 150 lbs. of steam.
Speed up to 3500 R. P. M.

Buy them complete, or
Build them yourself
from our Construction Sets.
Boilers, Hulls and Accessories.
Complete Power and Sailing Yachts.
Fittings for Exhibition Models.

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THE H. E. BOUCHER MFG. CO.,
152 Lafayette Street, New York

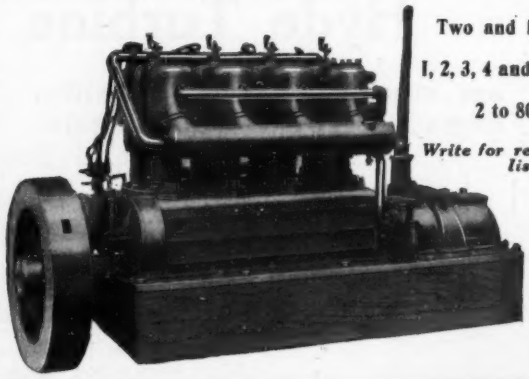
Hall-Scott Marine Engines

The BETTER Marine Engine for runabouts and fast cruisers. Greater Speed—More Economical—Less Vibration—More Engine Room Space. "Always Reliable."

TWO SIZES ONLY { 4 Cyl. 125 H. P. Weight 1100 Lbs.
6 Cyl. 200 H. P. Weight 1300 Lbs.

HALL-SCOTT MOTOR CAR CO., Inc.
Eastern Sales and Service Branch 260 Main St.
BUFFALO, N. Y.
FACTORY: BERKELEY, CALIFORNIA

PALMER MOTORS



Two and Four Cycle
1, 2, 3, 4 and 6 Cylinders
2 to 80 H. P.
Write for reduced price list

Palmer Bros. Engines, Inc.
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Curtiss Motor-Boat Water Closets

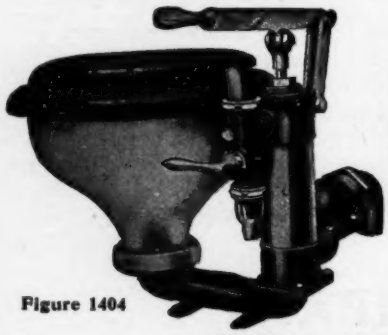


Figure 1404

A NEW IMPROVED MOTOR BOAT CLOSET

Dimensions, 18x18x11" high to top of bowl. 2½" cylinder. For above or below water line.
The best little closet on the market today, possessing many of the advantages of the large size toilet. All brass and porcelain. Oak seat and cover.

Curtiss Porcelain and Folding Lavatories

Corner Porcelain Lavatory

Dimensions, 12" x 12", 12" x 14" and 12" x 15".

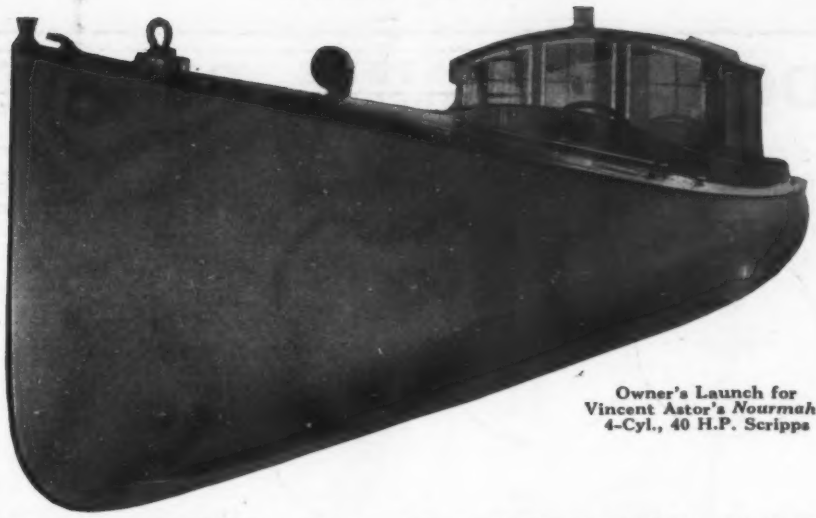
Folding Lavatories in all styles and sizes.

Fig. 1392-A

"All prices subject to market advances, which are continually changing"

Manufactured Solely by

THE J. H. CURTISS CO., 2 South Street, New York



Owner's Launch for
Vincent Astor's *Nourmahal*
4-Cyl., 40 H.P. Scripps

The BEST ENGINE for the FINEST LAUNCHES

Why is it that Scripps engines are chosen by Naval Architects to power the finest yacht launches?
It is because they have the Power, Reliability and High Class Finish demanded in boats of this type.
That is why a Scripps was chosen for the Owner's Launch of Vincent Astor's new yacht *Nourmahal*, designed by Cox & Stevens, the "last word" in yacht launches.
That is why the three launches of the new Dodge steam yacht—designed by H. J. Gielow and the largest yacht of the year— are Scripps powered.
They are absolutely dependable, they give the requisite speed and add to the classy appearance so necessary in the boat equipment of a "smart" yacht.

Standardized power plants for boats of every description—10 to 125 H.P., 2, 4, and 6-cylinder—gasoline and kerosene

SCRIPPS MOTOR COMPANY

"THE MOTOR THAT CROSSED THE ATLANTIC"

Scripps

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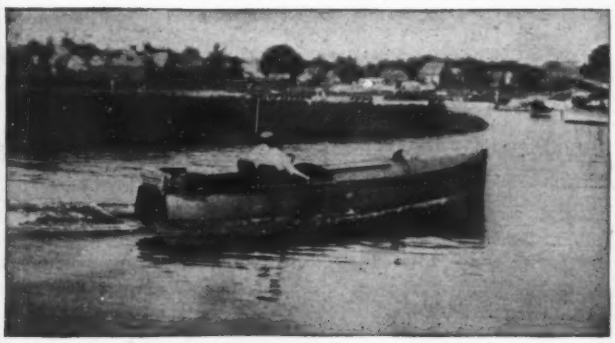
TOPPAN BOATS

SAFE--SEAWORTHY--RELIABLE



21-Foot V-Bottom Runabout—Speed 15 Miles

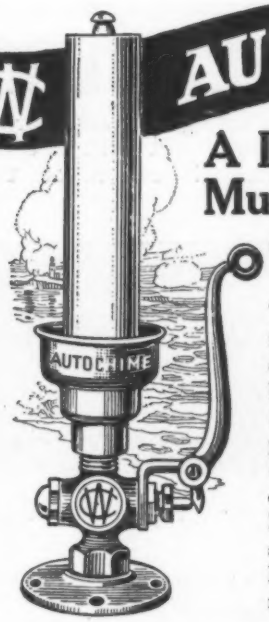
Sailing and Power Dories. Dory Launches, Launches. Power Tenders, Skiffs.

Write for catalog and prices

TOPPAN BOAT CO., Dept. Y Medford, Mass.

12-Foot Power Tender, 2 H. P.—Speed 7 Miles

AUTOCHIME



A Deep - Toned Musical Whistle

One of the 1001 WC Products

Tuned to first, third and fifth notes of scale. Its deep, powerful tones are blended and intensified by the megaphone effect of the patented cup-shaped bell that surrounds the sound openings. Blows easily on low air on burned gas pressure. Buy from your dealer. Look for WC trade mark and name AUTOCHIME on bell.

Get This Book of Helpful Hints
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"Sea Craft Suggestions and Supplies" solves those daily "puzzlers" that few know how to handle. Tells how to Box the Compass; what is Proper Ground Tackle; gives hints on Steering Gear, etc.; describes WC Dependable Marine Hardware; tells uses. Compiled from 70 years' experience in making marine fittings. Sent prepaid for 50c.

WILCOX, CRITTENDEN & CO., Inc.
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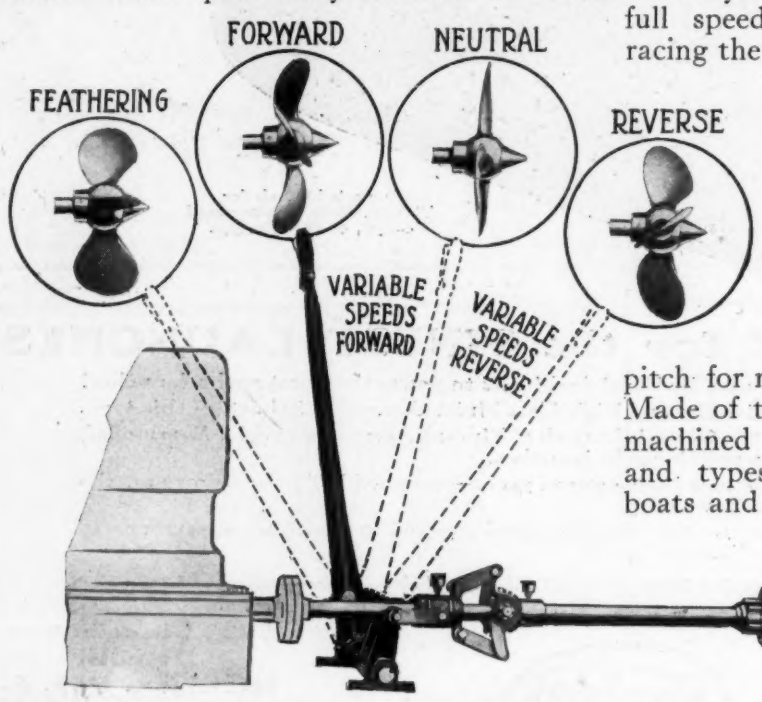
ESTABLISHED 1847

GORDON REVERSIBLE AND FEATHERING PROPELLER

Lighter and simpler than any reverse gear. Fewer working parts to wear or get out of order. Takes practically no room in the boat. Easily controlled, from full speed forward to full speed reverse without throttling or racing the engine.



A big feature of the Gordon is the fact that you can vary the pitch of your propeller at will, to meet the requirements of the boat, the load or the water. It controls boat speed more quickly and accurately than any other method. You can instantly set the propeller at the most effective pitch for maximum speed and driving power. Made of the very finest materials, accurately machined and assembled. For all sizes and types of motor boats, cruisers, work boats and auxiliaries.

The Gordon Propeller & Mfg. Co., 9010 DESMOND AVE., CLEVELAND, OHIO, U. S. A.

YACHT TENDERS

To meet the most exacting demand for a thoroughly high-class boat. Not built to compete with stock rowboats heretofore on the market.

White Cedar; mahogany trim; copper fastenings; brass fittings.

First-class seaboat; Good carrier; Easy rower.

Built to install motor if desired.

In Stock 10, 12 and 14 ft. Sizes.

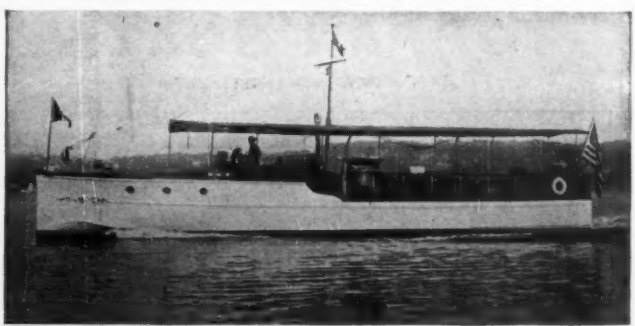
FLAT BOTTOM YACHT SKIFFS

Bright finish, light, easily towed or carried on deck.

In Stock 10, 12 and 14 ft. Sizes.

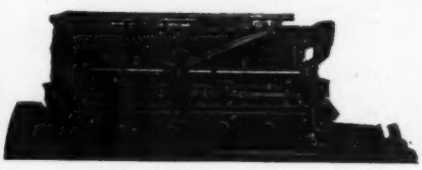
HENRY B. NEVINS

City Island, New York City



Mimi B—one of our 53-footers

We build yachts complete and there is no divided responsibility. Our 20th Century Motor, which we build in our own shop, is one of the leading engines. We are in position to build you a complete yacht, furnished and equipped, at prices that cannot be equalled when construction and finish are considered. Let US figure on your new yacht for next season.



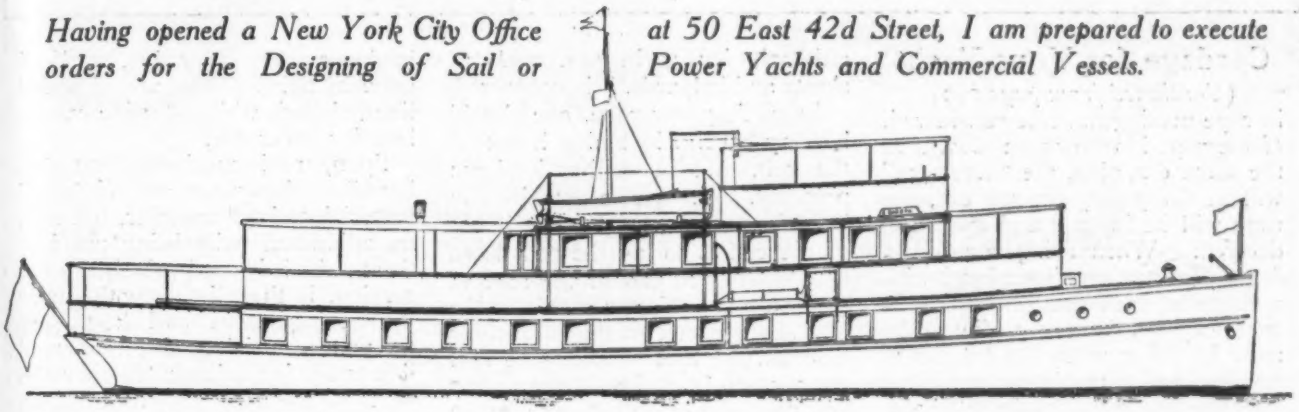
6-Cylinder, 6½" x 8½" 65 H.P. Twentieth Century Engine

N. Y. Yacht Launch .....AND..... Engine Co.

Morris Heights NEW YORK

Announcement

Having opened a New York City Office at 50 East 42d Street, I am prepared to execute orders for the Designing of Sail or Power Yachts and Commercial Vessels.



I have made a specialty of **Power Houseboats**

and have accumulated some very interesting data on costs, speed and equipment of modern seagoing types.

A Brokerage Department for Buying, Selling or Chartering Yachts is at your disposal and the privilege of listing your yacht would be appreciated.

R. M. HADDOCK, Naval Architect and Yacht Broker
50 EAST 42d STREET, NEW YORK CITY

STATE OF NEW YORK
OFFICE OF SUPERINTENDENT OF PUBLIC WORKS
ALBANY

April 1, 1921.

NOTICE OF OPENING OF STATE CANALS:

The Erie, Champlain, Oswego and Cayuga-Seneca canals will be opened to navigation at twelve o'clock noon of Saturday, April 30, 1921.

The following sections of the old Erie and Oswego canals retained in use will also be opened to navigation at twelve o'clock noon of Saturday, April 30, 1921:

Between Tonawanda and the city of Buffalo.
Between the South Greece junction lock and the Lexington avenue dam in the city of Rochester.
Between New London junction and Mud Lock junction locks and the city of Syracuse.
Between Rome junction lock and Schuyler street, in the city of Utica.

The date of opening of the old canal between Waterford and the Hudson river at Albany, will be held in abeyance on account of pending legislation.

The date of opening of the Black River canal will be announced later.

The Erie and Champlain canals; the old canal between Tonawanda and Buffalo; that portion of the old canal at Rochester, and the old canal between Rome and Utica, will be open to navigation 24 hours per day.

The Cayuga-Seneca and the Oswego canals will be open to navigation between the hours of 6:00 o'clock in the morning and 10:00 at night.

The old canal through the city of Syracuse will be open to navigation between the hours of 10:00 o'clock at night and 6:00 o'clock in the morning.

Copies of rules and regulations governing navigation on the State canals may be had upon application to the Superintendent of Public Works. Charts showing the channel in the canalized rivers and lakes may be obtained at this office at a cost of twenty cents per sheet.

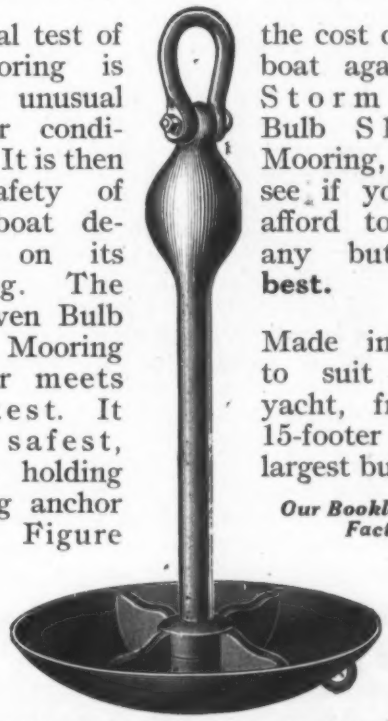
CHARLES L. CADLE,
Superintendent of Public Works.

THE BEST INSURANCE FOR YOUR BOAT IS

Fairhaven Bulb Shank Mooring

BECAUSE IT HOLDS WHEN ALL OTHERS ARE USELESS

The real test of a mooring is during unusual weather conditions. It is then the safety of your boat depends on its holding. The Fairhaven Bulb Shank Mooring Anchor meets this test. It is the safest, best holding mooring anchor made. Figure the cost of your boat against a Storm Proof Bulb Shank Mooring, and see if you can afford to trust any but **the best.**



Made in sizes to suit every yacht, from a 15-footer to the largest built.

Our Booklet gives Facts

FAIRHAVEN IRON FOUNDRY CO.
Fairhaven, Mass.

New York City Distributors
William A. Hall's Son, 111 Broad Street — Geo. M. Auten & Co., 189 Front Street,
Topping Brothers, 122 Chambers Street — Thos. Fleming Day, Inc., 412 Eighth Ave.

YACHTS BUILT, REPAIRED, STORED GASOLINE, WATER, YACHT SUPPLIES

PORT JEFFERSON MARINE RAILWAY CO.,
PORT JEFFERSON, N. Y.

TWO MARINE RAILWAYS
CAPACITY UP TO 1000 TONS AND 15 FT. DRAFT
EXCELLENT HARBOR
ALL FACILITIES

Cordage for Your Yacht

(*Continued from page 240*)

in rope making must be considered. If the rope is thrown on always in the same direction, the "afterturn" will be completely thrown out, the rope will be injured and operation delayed. When using rope on a double capstan or nigger head with a drum at each end of the shaft, each capstan having a fall, care must be taken when the capstan is running and there is no strain on the rope that the turns do not chafe. Parceling or chafing gear put on a rope where it goes through a chock will also protect it from the constant play that it is subject to.

Acid is also very detrimental to rope, and it should not be stored anywhere near a coil of rope, as the latter absorbs the acid and makes it deteriorate rapidly. This is, however, not very apt to happen on a yacht. I know of one case where a new lead line was stored in a locker with acid, and when the former was broken out one time in a hurry to get a sounding it was rotted through so that it disintegrated in the hand.

In buying rope for yacht use, one should, as was said before, buy the best. This means bolt rope, and there are certain brands of bolt rope which are manufactured especially for yacht use, made of hemp of very fine quality. This yacht rope has a fairly soft lay, which makes it easier to handle than a rope with a hard lay, besides which its quality gives it a fine white appearance, and if properly cared for, it will last a long time. Bolt rope originally got its name from the fact that it was used for the roping of sails, the derivation evidently being from the bolt of canvas from which the sails were made, and it was of superior quality to other rope on a ship. It is made from a Manila fibre, and from tarred, Russian, Italian, and American hemp, although for yacht use, such as sheets and halyards, it is not tarred.

In getting new rope, one should be very careful in taking it out of the coil, and in coiling it down properly, so as not to get kinks in it. The proper way to take it out of the coil is to lay the coil down with the tagged end of the rope at the bottom. This tag end is in the hole at the center of the coil, which is called the eye. Make sure that the tag end is at the bottom of the eye, reach down into the eye, grasp the tag end, and pull it up through the eye of the coil. If you do it this way you will avoid making hockles which spread and kink the threads in the strands. When these are once spread, they never come back into position, and if this occurs, the wearing quality of the rope is impaired. Most of this rope is laid right-handed, and when coiled, must always be coiled from left to right or "with the sun," as the sailors say. Left laid rope is sometimes made, the strands being twisted together in the same direction as the movements of a clock's hands.

Rope is usually laid in three strands, four strands with a heart through the center, or six strands with a heart through the center. For ordinary purposes for yacht use, four-stranded rope will probably be the best to use.

Other brands of rope which the yachtsmen should know the names of, and which are used more or less on yachts or sail boats, are: Marline, made from two threads of hemp yarns, and used for many purposes, such as worming, serving and small seizings. Houseline is made from the same material and in the same manner as Marline, except that the cord has three instead of two yarns; Roundline is a cord of three yarns, made in the same manner as Houseline, but of larger size, while Hambroline is practically the same as Houseline, but if of opposite twist. These are all tarred lines, though white Marline can be had for yacht use.

Spunyarn is much used on ship board. The yarns are of tarred material, twisted together, but with no additional twist being put into them. As it is used principally for serving, it thus lies smooth under the serving mallet and keeps out the water. Seizing stuff is a small line used for seizing together the parts of the rope, the throat of an eye splice, anchor lashings, for mousing hooks. etc.

Building a 24-Foot Auxiliary

(*Continued from page 242*)

be ordered at one time, but bear in mind that this only includes the hull and that waste has been allowed for.

Accuracy in building will be just as important as in laying down the lines, and by all means don't rush the work, for this is the cause of more mistakes than anything else. I know from experience that it's a hard thing to take your time when blue water is beckoning you, but it is likewise from this experience that I know rushing doesn't pay.

The fastenings should be galvanized throughout, and don't be stingy with them. The material should be the best that your money can buy, for you must remember that when the boat is to be sold, good material will count high in the selling price, and it's a great source of comfort to know that you need not be afraid of your boat in a seaway, for here good material shows its worth.

In the next month's installment we will take up the making of the chines, the planking of the boat, the deck, and caulking.

(*To be continued*)

DECK CANVAS-ALL WIDTHS
YACHT SAILS-AWNINGS-SPRAY HOODS-Etc.
522 So. Delaware Ave Philadelphia
GEO. R. BURROWS. Inc.
2 South St New York

CARPENTER SUPPLIES GIVE SATISFACTION

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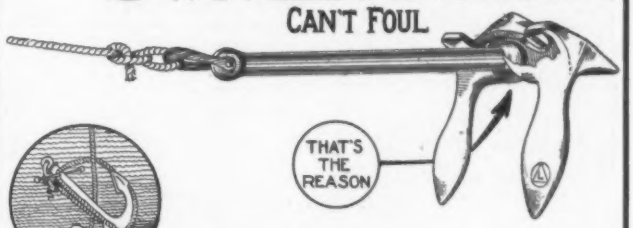

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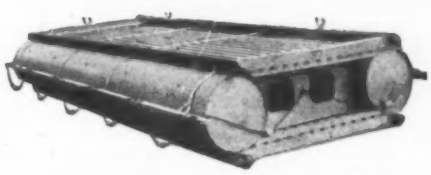

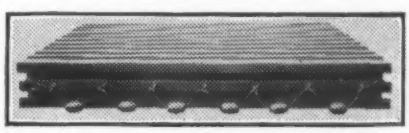

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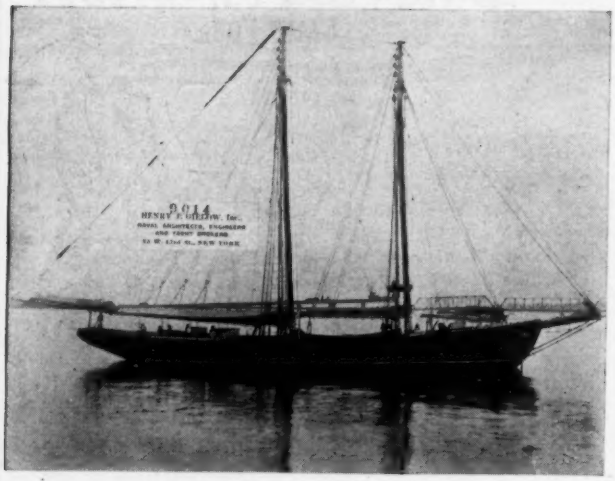
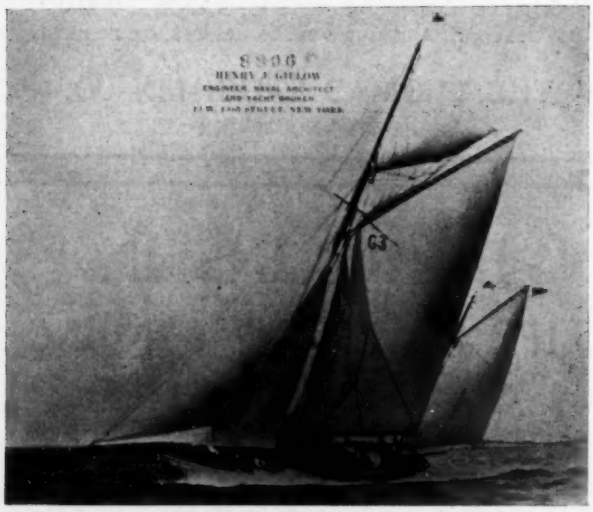
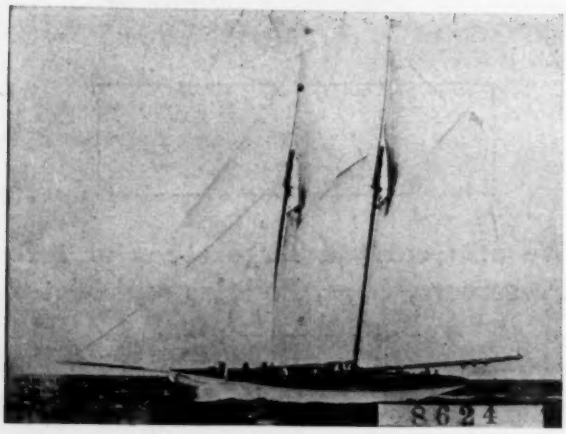


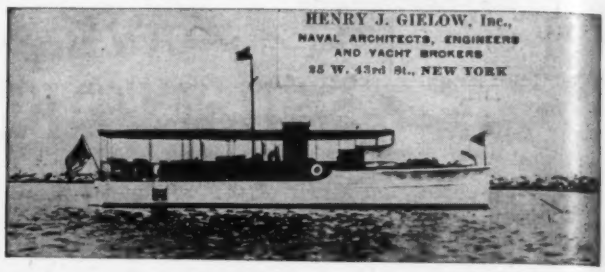
NO. 9014—Exceptional purchase in an offshore auxiliary keel schooner, 80 ft. water line, 22 ft. beam, built 1916, Gloucester fisherman model and construction; one double, one single stateroom and saloon; sleeps 7. Bath, Delco lighting plant, sails and furnishings complete, all new 1920. Two Lathrop motors 36 H. P. each. Just the craft for West Indies cruising. Located south. Henry J. Gielow, Inc., 25 W. 43rd St., New York City.



NO. 8806—FOR SALE OR CHARTER—Desirable 51 foot keel Auxiliary yawl, one single stateroom, sleeping accommodations for five, engine new 1920; able seaboat suitable for offshore cruising; all good condition. Now in commission, located near Boston. Henry J. Gielow, Inc., 25 West 43rd Street, New York.



NO. 8624—FOR SALE—Auxiliary Schooner 84' x 19' x 8' 2". One double and three single staterooms, bathroom and toilet room. Thoroughly overhauled throughout 1920. New suit sails 1920. Further particulars, price, etc., from Henry J. Gielow, Inc., 25 W. 43rd Street, New York City.



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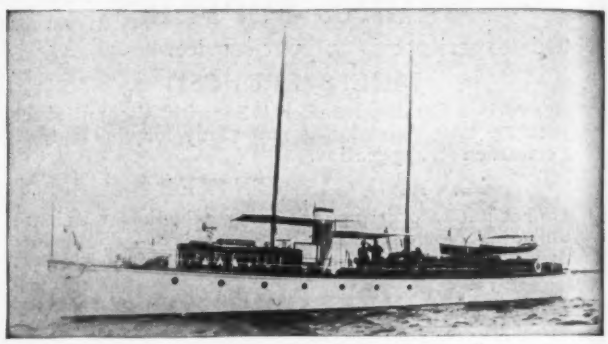
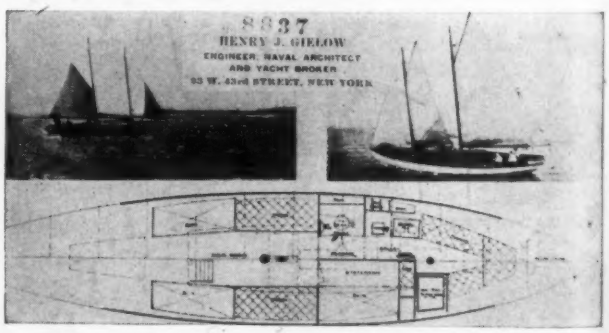
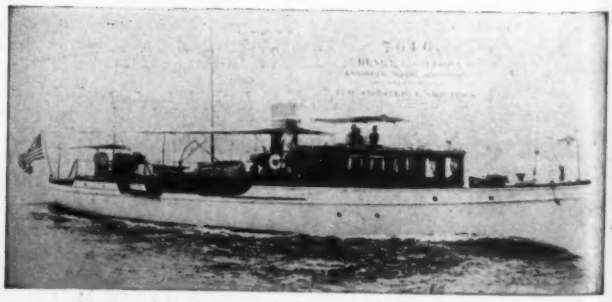


NO. 7032. Bargain. Desirable steel twin screw motor yacht. Standard Motors, all excellent condition. Mahogany deck dining saloon. Two double staterooms finished solid mahogany. Hot water heated. Able sea boat. Owner cannot use, so anxious to sell. Henry J. Gielow, Inc., 25 W. 43rd St., New York City.



NO. 8837—FOR SALE—Attractive 48' 7" keel auxiliary schooner. Built 1913; new Sterling motor installed 1920. One single stateroom, toilet room. New suit sails 1920. Electric lights. Henry J. Gielow, Inc., 25 W. 43rd Street, New York City.



NO. 7040—FOR SALE—Bargain. Desirable 96 ft. twin screw Lawley built motor yacht now in commission. Standard engines. Large deck house contains dining saloon. Two double staterooms and main saloon. All furnishings including player piano new 1919. Opportunity for quick sale. Henry J. Gielow, Inc., 25 W. 43rd St., New York City.

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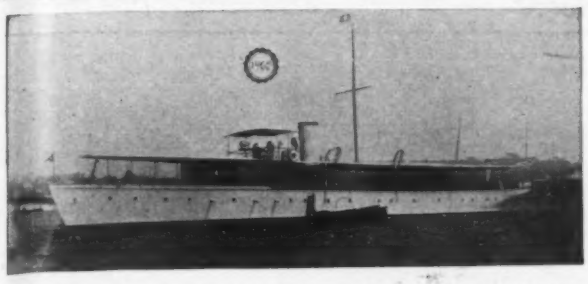

NO. 1466—FOR SALE OR CHARTER—Particularly desirable 140-foot twin-screw steel cruising power yacht. Speed up to 18 miles; two 300 H. P. Standard Motors. Dining saloon and social hall on deck; 3 double and 1 single staterooms, 3 bath and toilet rooms, etc. Recently overhauled thoroughly at large expense. In splendid condition. Further particulars from Cox & Stevens, 15 William Street, New York.

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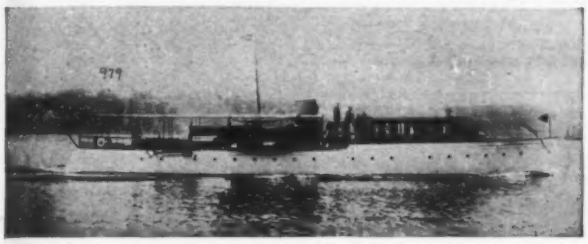
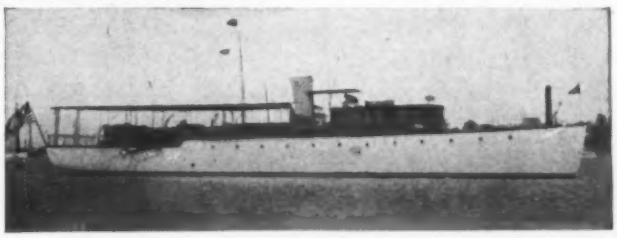
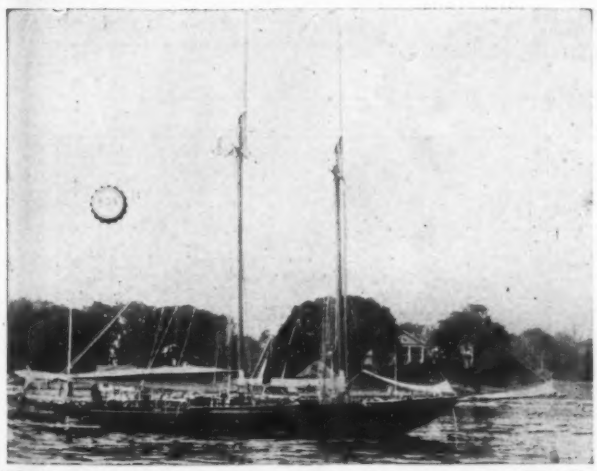


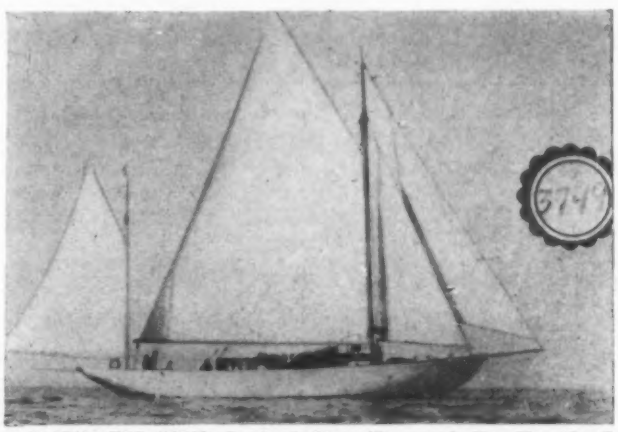
NO. 979—FOR SALE—(might charter) Especially desirable 98 ft. twin screw cruising power yacht. Speed up to 16 miles; Standard Motors. Deck dining saloon, three double and one single staterooms, two bathrooms, etc. Teakwood deck house and deck trim. Completely overhauled, new furnishings throughout. Price reasonable. Cox & Stevens, 15 William Street, New York.



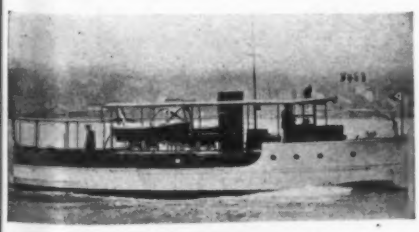
NO. 463—FOR SALE—Steel, twin screw cruising power yacht; 110 x 17.6 x 6 ft. Speed up to 14 miles, two 100-125 H. P. air-starting, reversible Standard motors. Accommodations include deck dining saloon, main saloon, two double and two single staterooms, bathroom, two toilets. Handsomely finished and furnished. Cox & Stevens, 115 William Street New York.



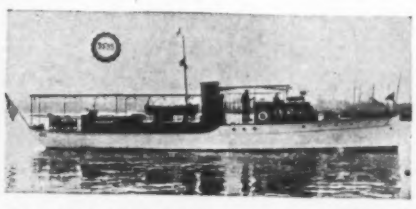
NO. 525—FOR SALE—Flush deck Lawley keel schooner yacht; 75 x 50 x 16. x.9.9. draught. One double and one single stateroom, three berths in saloon. In 1920 large amount spent on improvements, deck equipment and interior furnishings including new suit sails, rigging, 14.6 motor tender, Mathews Electric light plant, etc. Price reasonable. Cox & Stevens, 15 William Street, New York.



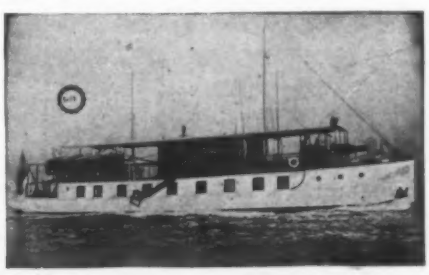
NO. 3749—FOR SALE—Lawley built auxiliary yawl; 67 x 58 x 16 x 5.6 draught. Built 1919. Large saloon containing two double berths, double stateroom, 48-90 H. P. Speedway motor located under cockpit entirely out of the way . Beautifully finished and furnished. Cox & Stevens, 15 William Street, New York.



NO. 3483—FOR SALE—Unusually roomy 60 ft. bridge deck cruiser. New 1917. Speed 11 miles; 60 H. P. Sterling motor. Large dining saloon, two double and one single staterooms, two toilet rooms (one with foot tub), large galley, etc. Complete equipment. Price reasonable. Cox & Stevens, 15 William Street, New York.



NO. 3533—FOR SALE—Handsome, fast, twin-screw power yacht; 72 x 12 x 3.6 ft. Built by Lawley in 1917. Speed up to 16 miles; two 6 cyl. Winton Motors. Dining saloon in forward deckhouse; two double staterooms aft, bath and two toilet rooms, etc. Independent electric lighting plant, hot water heat. Cox & Stevens, 15 William St., New York.



NO. 3151—FOR SALE or CHARTER—Particularly desirable twin-screw houseboat; 77 x 17.6 x 3 ft. Speed 11 miles; two 6 cyl. 60-70 H. P. Standard motors new 1919. Large deckhouse containing social hall; main saloon, two double and two single staterooms, two bath and toilet rooms, etc. Handsomely finished and furnished. Cox & Stevens, 15 William Street, New York

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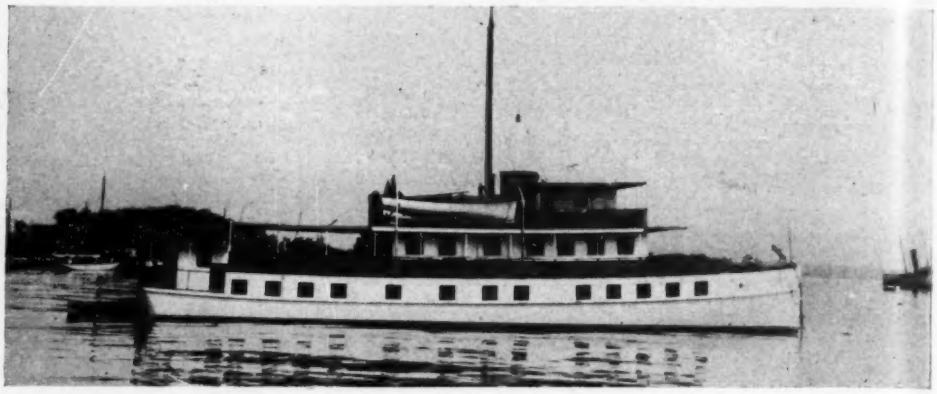

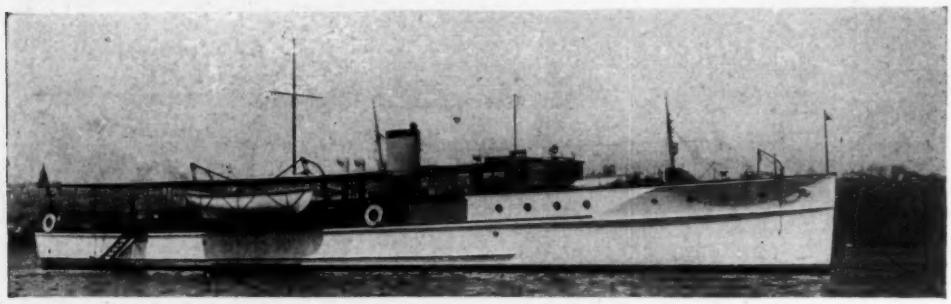

NO. 2355—FOR SALE—This handsome oil burning yacht. 115′ x 15′5″ x 6′ available for purchase. Built by Herreshoff, in 1919. Has cruised to the West Indies. Attractive price. G. W. Ford Yacht Agency, 30 East 42nd St., New York City

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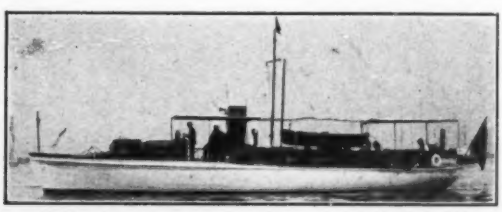
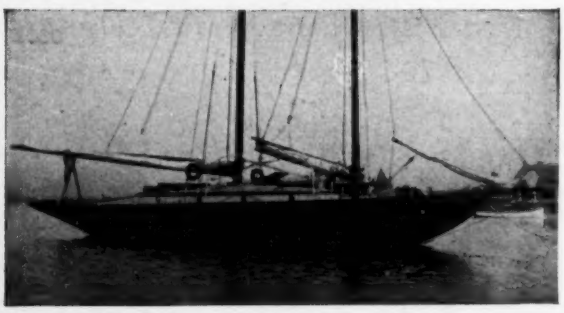
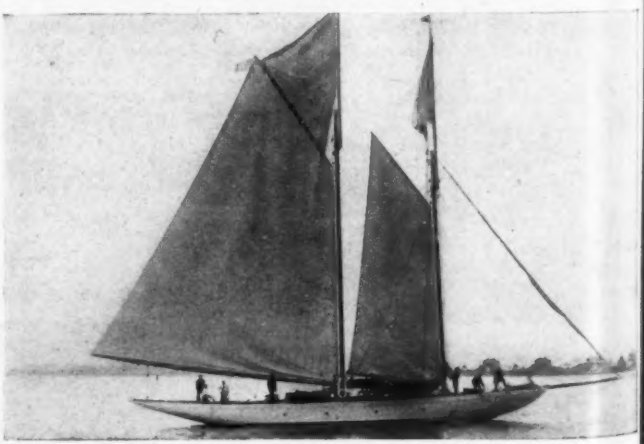


NO. 2347—FOR SALE—Bridge-deck cruiser, 60 ft. by 58 ft. by 11 ft. 6 in. by 4 ft. Two staterooms, large saloon, lavatory, etc. Speedway engine. 12-foot tender. For further information, price, etc., apply to the G. W. Ford Yacht Agency ,30 East 42nd Street, New York City.



NO. 1080—FOR SALE—Auxiliary schooner 42 ft. 2 in. x 30 x 12 ft. 2 in. x 4 ft. 6 in. Accommodations for four. Built 1915. Sails and equipment complete and in good condition. G. W. Ford Yacht Agency, 30 East 42nd Street, New York City.



NO. 565—FOR SALE OR CHARTER—Flush deck keel schooner 81 x 51 x 16 x 10. Two staterooms, large saloon. In perfect condition, fully equipped for racing and cruising. G. W. Ford Yacht Agency, 30 East 42nd Street, New York City.

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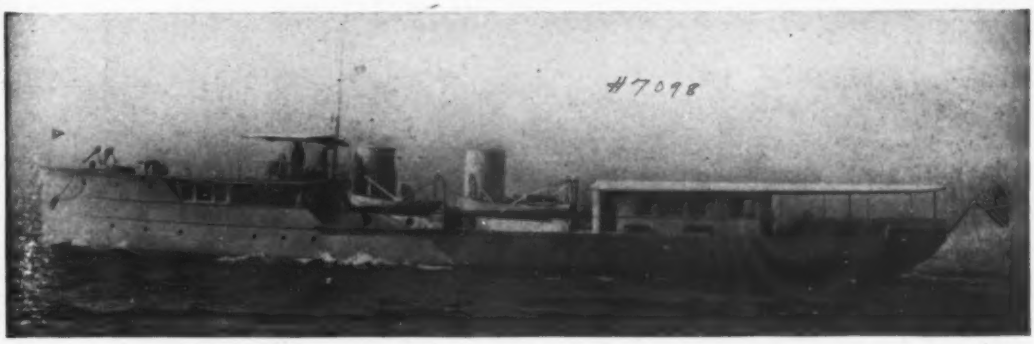

NO. 4560 — FOR SALE — Lawley built auxiliary schooner, 69′ x 45′ x 15′ x 9′, 2 staterooms, main saloon, etc., new motor and sails 1920. Full plans and particulars from Tams, Lemoine & Crane, 52 Pine St., New York.

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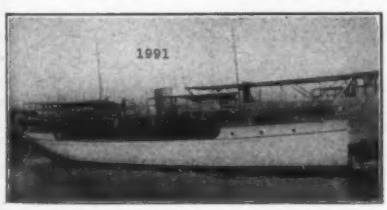

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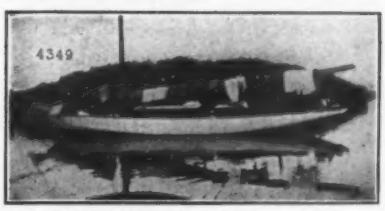

NO. 4349—Keel Sloop 50′ x 32′ x 11′ 6″ x 7′ 6″. Built 1913. Six tons lead on keel. Double stateroom, four fixed berths in main cabin; toilet. Could easily be converted to yawl, and has splendid room for power. Owner very anxious to sell on account of purchasing larger yacht. Apply H. H. Jennings Company, Tribune Building, 154 Nassau Street, New York.

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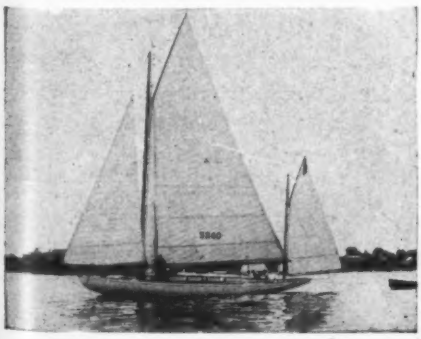
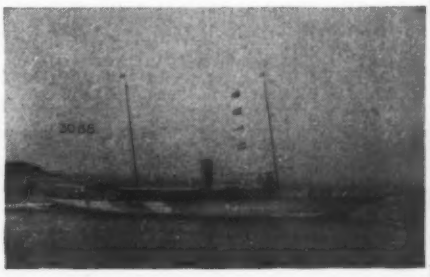
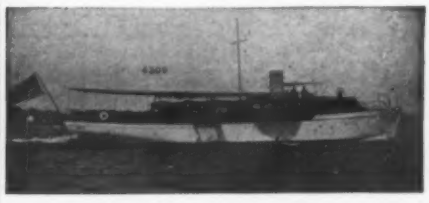


NO. 3260—Auxiliary centerboard yawl. 55′ x 36′ x 12′ 6″ x 6′. Stateroom and main cabin sleep five persons. Toilet. Two berths in forecastle. 25-35 H.P. Sterling Motor. Electric light. Speed 8½ miles. Apply H. H. Jennings Company, 154 Nassau St., New York City, N. Y.



NO. 3068—145 foot steel steam yacht. Four staterooms, dining saloon, social hall, baths, etc. Steam heat, electric lights, etc. Speed 16-18 miles. Apply H. H. Jennings Company, 154 Nassau Street, New York City, N. Y.



NO. 4309—SALE OR CHARTER—100 foot steam yacht. Two double staterooms, main saloon, dining saloon, etc. Speed, 13 miles. Apply H. H. Jennings Company, Tribune Bldg., 154 Nassau St., New York City, N. Y.

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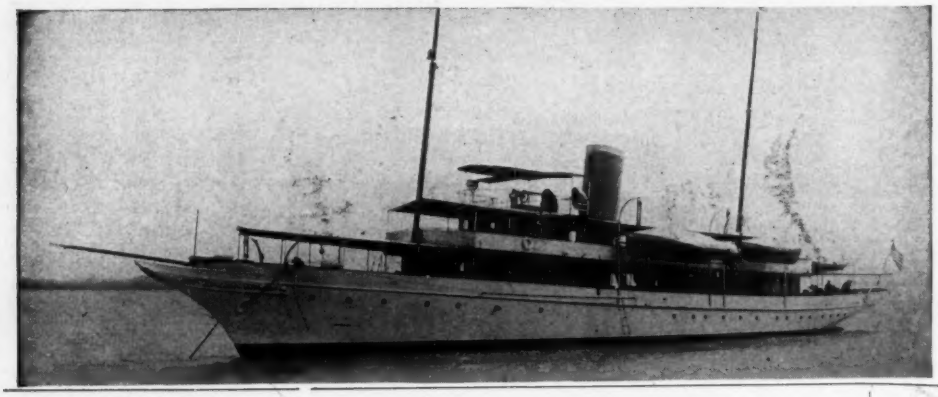

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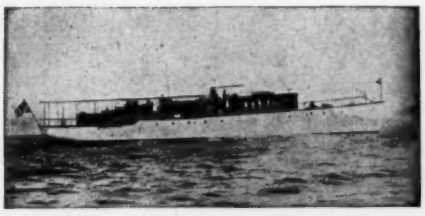

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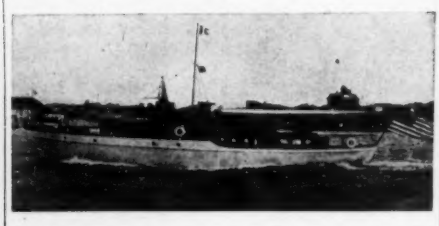

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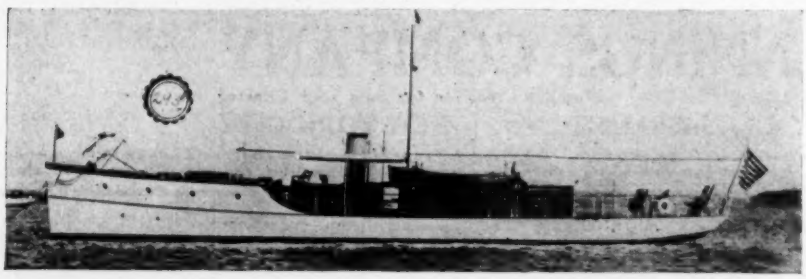

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(*Continued from page 249*)

be bent, so as to come into the slots cut for them in the various molds, and such trimming as is necessary to make this fit can be done as you go from frame to frame.

After this fitting is done, the chine log can be permanently fastened to each frame, beginning at the forward frame and working aft. A line should be run along the face of these chine logs, which will represent the original chine line on your drawing, and when beveling off the chine logs, to meet the bevels of the frame, try to keep this center line in mind, so that when the beveling is finished, the edge remaining will represent this chine line just mentioned.

This part of the work will require a great deal of faring or truing, so that there will not be holes or bumps in between the frames, the reason for this work being to produce a light sort of lattice work foundation upon which the planks may be laid. You can readily see that the truer this foundation the better the planks will look when they are finally fastened to them.

With all the fitting work completed, it will be about time to drill the chine logs and the keel at each frame, setting the joints in Ambroid and driving home the wood pegs. After ample time has been allowed for drying, a piece of pattern paper longer than the entire boat and wider than the widest plank should be laid along one side of the mold, after having divided each frame into three equal parts. The distance between any two of these marks will represent the width of the plank at that particular frame, and what we want to do is to cut this pattern paper into the shape of the top plank, or sheer streak, as it is called.

(*To be continued*)

A 70-foot Cruiser

(*Continued from page 246*)

14 feet beam, 3 feet draft and she is powered with an 8-cylinder 300 H.P. Sterling engine.

The general appearance of the yacht shows a long, low craft of the express cruiser type with fair freeboard and strong flare forward. The decks are left clear, except for a stack and the shelter around the steering bridge, which gives lots of deck room.

The arrangement below decks shows two large double state rooms, located aft, with a toilet room between them an a good sized saloon amidships, into which comes the companionway from the deck. Then comes the engine room with the main engines and a complete electric lighting set and the galley, separated by a bulkhead. Forward are found the crew's quarters and a toilet room.

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135—	40′ Sloop with trunk cabin	2,000
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137—	35′ Sloop with cabin	750
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The American Armed Yachts

(*Continued from page 225*)

The convoy had proceeded on its way, but before 2 a. m. two more ships had been torpedoed and sunk. No signs of the submarine were seen, but it is believed the Boche operated practically on the surface, where, aided by a superior speed of eighteen knots and the inky darkness, was able to select his victims at will. This incident put an end to night convoys on the French coast for the remainder of the war.

The torpedo was not the only source of danger to be considered. On one of our first night runs down the coast the *Harvard* was in the rear of the convoy. We had noticed earlier in the evening evidences of erratic behavior on the part of one of the merchant vessels and had twice narrowly avoided collision. As we entered the Glenan Passage this same ship suddenly stood off at full speed to the right and despite our warning signals dashed against the rocks and was lost. We picked up her crew and found that her captain, before turning in, told the officer of the watch to zig-zag. He had not studied the chart and thought that the convoy was sailing in the open sea or did not know that there was not enough room to zig-zag in the Glenan Passage. The man at the wheel saw the rocks and informed the officer of the watch, but was told to mind his own business. Accidents, however, were few, considering the small amount of protection afforded by the yachts and trawlers. From July 15, 1917, to July 4, 1918, in all the convoys in which the *Harvard* participated, numbering about 2,500 vessels, only two ships were lost and none of these while under exclusive American protection. One zig-zagged on the rocks as just narrated, and one was torpedoed off Pen March. A third ship was torpedoed near the Isle de Groix, but was beached and saved, and a fourth ran ashore in a fog near Pen March, but was able to get off and was repaired.

The force of yachts at Brest was constantly being increased by new arrivals. The second contingent arrived in August, 1917, and before the winter the *Wanderer, Alcedo, Emeline, Nokomis, Wakiva, Corona, Guinevere, Remlik, Isabel, May* and *Rambler* had joined. In January, 1918, the daylight system of coastal convoys was instituted and the yachts were divided into groups, assisted by small American torpedo boats of the Worden class. The group with which the *Harvard* operated consisted of three other yachts and a torpedo boat, thus forming a small American division, and took complete charge of one convoy. As far as possible, each group was either all French or all American. The operations of the convoys were conducted by a French Admiral, Vice-Admiral Schwerer, called the Chief of the Brittany Patrol, with headquarters at Brest. All orders for the convoys were sent out from his office and the captains of each yacht reported to him or to his representative before going to sea and on returning. Discipline, administration and assignment to groups of American yachts, however, were entirely in the hands of the Commander, United States Naval Forces in France, Admiral H. P. Wilson, who had his headquarters ashore in Brest in the same building as the French Admiral. The American destroyers during their operations off the French coast received orders only from the Commander, United States Naval Forces in France, but the yachts, as

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far as their work at sea was concerned, were under French control and usually received orders in French codes. The closest cooperation existed between the French and American Navies, and never the slightest note of discord.

In the operation of the new daylight convoy the yachts would leave their moorings in the inner harbor of Brest in the early afternoon and join the fleet of merchant ships anchored across the Bay near Roscanvel. At 4 p. m. the captains of the merchant ships of the morning convoy and the yacht captains would repair aboard the senior yacht for a conference. At these conferences nearly every nation except the enemy was represented, and it was an odd assemblage that gathered around the table in the luxurious saloons of the yachts. The woodwork of the saloon of the *Harvard* was rose-colored mahogany and contained handsome transoms, fabric covered electric lights and an open fire-place surmounted by a Tiffany clock. Few changes were made in the officers' quarters, as it was always borne in mind that the ships were eventually to be returned to their owners. It seemed almost presumptuous for young men like ourselves to give instructions to such old sailors as made up the captains of our convoys. Many had been to sea before we were born and been torpedoed or mined several times.

Conversation was carried on in English and French, with an occasional word of Spanish. The charts were brought out and the route down the coast explained and also the different formations to be used. On the following morning, usually about 4 a. m., the escort yachts would sound their whistles as a signal to get under way, and the ships would heave up their anchors and file out through the Goulet of Brest. The leading ship of the convoy carried a French military pilot, which was very necessary on account of the accurate navigation required to follow the small channels of Brest and down the coast. There was one channel of Brest we often used, called the "Toulinguet," where the deep water lay close up to a pinnacle rock and where the leading mark was a finger-shaped ledge just showing beyond a nearby point of land. At daylight the convoy would be formed in two parallel columns, with the escort disposed along the flank. The torpedo boat would take station in the rear, acting as a whip to close up those ships which lagged behind.

(To be continued)

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